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COMMISSION STAFF WORKING DOCUMENT

Assessing the impact of measures to phase out Russian gas imports and improve the monitoring of potential energy dependencies and amending Regulation (EU) 2017/1938

Accompanying the document

Proposal for a Regulation of the European Parliament and the Council

on phasing out Russian gas imports, improving the monitoring of potential energy dependencies and amending Regulation (EU) 2017/1938

{COM(2025) 828 final}

1. Objectives

The "Roadmap towards ending Russian energy imports" ('Roadmap') adopted on 6 May 2025 builds on the EU's immediate response to tackle the consequences of Russia's illegal invasion of Ukraine, including the REPowerEU[1] plan, and the significant progress made within three years to diversify away from Russian energy by implementing REPowerEU[2], the green transition and sanctions.

Despite the progress, EU energy imports from Russia remain in the Union's energy system. This poses a threat to the EU's energy and economic security. The Roadmap sends a clear signal to markets and alternative suppliers that the EU is fully committed to stop relying on Russian energy and therefore putting an end to being subject to potential coercive actions of the Russian Federation.

The present staff working document accompanies the Commission Proposal for a Regulation of the European Parliament and of the Council on phasing out Russian gas imports, improving monitoring of potential energy dependencies and amending Regulation (EU) 2017/1938 (COM (2025) 828). It assesses the expected impact on the affected markets and recalls the objectives of the proposed measures.

2. Russia's weaponisation of the energy sector

Russia has a history of threatening the EU's security of supply by unilaterally cutting gas flows to Europe.

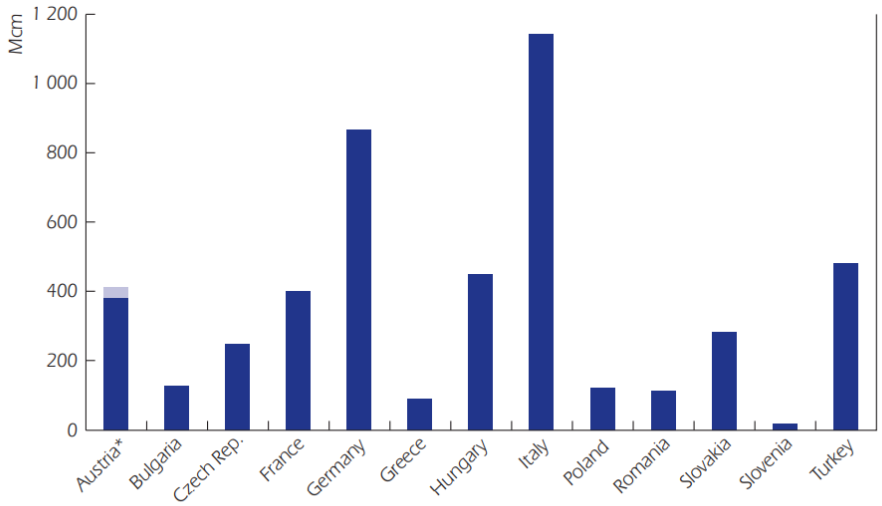
The first episode dates back to early 2006 when, following a commercial dispute between Gazprom and Ukraine, deliveries to Ukraine were cut significantly. On 2 January 2006, several European countries reported a cutback of gas deliveries due to reduced feeding-in from Russia. The drop was considerable: Hungary was reported to have lost up to 40% of its Russian supplies; supplies to Austria, Slovakia and Romania were down by one third, France and Italy by 25-30% and Poland by 14%.[3] Withdrawals from storage and voluntary fuel switching made up for the supply reduction. As the disruption lasted just a few days, no interruption of supplies to final customers in the EU was reported. However, as noted by the IEA[4]: "*The dispute and consequent interruptions did cause serious concerns over security of supply and gas dependence on Russia in many European countries"* and it shows how *"Gazprom is clearly prepared to use harsh tactics to enforce higher prices*". In the aftermath of the dispute, a number of measures were discussed to improve the security of supply in the regions, including increased strategic gas stocks, diversification of the fuel mix, diversification of gas supply by calling on other pipeline gas suppliers, increased fuel-switching capacities, energy efficiency, and more. For example, in 2007, the Commission

[1] COM(2025) 440 final.
[2] EUR-Lex - 52022DC0230 - EN - EUR-Lex.
[3] Stern, J. (2006), Natural Gas Security Problems in Europe: The Russian-Ukrainian Crisis of 2006, Asia-Pacific Review 13, 32-59.
[4] IEA, Natural gas market review 2006, https://iea.blob.core.windows.net/assets/51e7a259-4111-4def-8244-ece1e5c840f0/NaturalGasMarketReview2006-TowardsaGlobalGasMarket.pdf

Communication for an energy policy for Europe[5] stressed the necessity to promote diversity of supply with regard to source, supplier, transport route and transport method in view of the high or complete reliance of some Member States on one single gas supplier.

The Russian weaponisation of energy was observed again in January 2009 when Russia cut off all gas supplies transiting through Ukraine for two weeks, leading to the largest interruption of gas supply in EU history. This came at a time of very high peak gas demand in Western and Central Europe, with the coldest weather in two decades. The gas disruptions resulted in the most serious gas supply crisis to hit the EU in its history until 2022, depriving EU Member States of 20% of their gas supplies (30% of imports). A total of 12 Member States and Member Countries of the Energy Community were affected, and there were significant economic repercussions in several Member States.[6]

Figure 1: Russian gas volume not delivered during the 2009 crisis



Key point: Volumes missing amounted to 5 bcm

Source: IEA, Natural Gas Market Review, 2009
** Austria estimated*

Western countries were in general able to meet the demand without interruptions to users through a variety of mechanisms, including increased supply from other countries, stock drawdown, voluntary and involuntary demand reductions in industry and consumer sectors, and fuel switching in the power sector. However, this was not the case in the Central-Eastern region, "*with industrial supplies interrupted in several countries and households as well*."[7] Major disruptions were recorded in Bulgaria, Romania, Croatia and in neighbouring countries, such as, for example, Serbia and Bosnia and Herzegovina.[8] The consequences were particularly severe in the Balkan countries which experienced a humanitarian emergency as

[5] COM(2007) 1 final. https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0001:FIN:EN:PDF
[6] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52009SC0977
[7] https://iea.blob.core.windows.net/assets/a099151f-4141-43ed-a797-7eddcfec92a0/NaturalGasMarketReview2009.pdf
[8] Aleksandar Kovacevic, The Impact of the Russia–Ukraine Gas Crisis in South Eastern Europe, Oxford Energy Institute, 2009

part of the population could no longer heat their homes at the peak of the winter season. In total, according to the IEA,[9] "*some 5 bcm of transit gas supplies had not been delivered over a two-week period, plus around 2 bcm of Ukrainian supplies"*. This crisis led to the creation of the first stepping stone in the EU's gas security of supply framework. In its second strategic energy review[10], the Commission proposed an EU energy security and solidarity action plan, focusing notably on the infrastructure needs and the diversification of energy supplies and on strengthening oil and gas stocks and crisis response mechanisms.

Five years later, in March 2014, Russia annexed Crimea and seized Ukrainian gas production assets. In April 2014, Putin declared in an open letter that Europe faced an increasing risk of a new gas supply crisis and threatened to halt gas supplies to Ukraine. While no interruption to the flow to the EU occurred, Gazprom increased prices for Ukraine and another dispute between Gazprom and Naftogaz led to the disruption of supplies to Ukraine on 16 June 2014. Some Member States tried to supply Ukraine by reselling gas purchased from Russia, but Russia, as a retaliatory measure, cut supplies to Poland, Slovakia, Romania and Austria which eventually reduced or halted the reverse flow towards Ukraine.[11]

Table 1: Russia's retaliation against EU Member States in 2014 – estimated supply cuts

Country	Date	Possible triggering event	Percentage of cut quantities
Ukraine[38]	16 June	Price and debt dispute with Gazprom unresolved	100 %
Hungary[39]	25 September	Meeting between Prime Minister and Gazprom CEO A. Miller on 22 September	0 % but Hungary halted reverse flow to Ukraine
Poland[40]	8 September	Gazprom accused Poland of illegally reversing flow to Ukraine	20-45%
Slovakia[41]	1 October	Gazprom accused Slovakia of illegally reversing flow to Ukraine	50%
Romania[42]	2 October	Raid on Lukoil as part of anti-corruption probe	13%
Austria[43]	11 September	Gazprom accused Austria of illegally reversing flow to Ukraine	15%

Source: De Micco (2014): "A cold winter to come? The EU seeks alternatives to Russian gas" – European Parliament – Directorate-General for External Policies – Policy Department

[9] https://iea.blob.core.windows.net/assets/a099151f-4141-43ed-a797-7eddcfec92a0/NaturalGasMarketReview2009.pdf
[10] https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0781:FIN:EN:PDF
[11] De Micco (2014): "A cold winter to come? The EU seeks alternatives to Russian gas", DIRECTORATE-GENERAL FOR EXTERNAL POLICIES, Policy Department.

In the past, Russia's State-controlled monopoly exporter Gazprom has been the subject to several Commission investigations for a possible breach of the EU competition rules and has subsequently modified its conduct on the market to address the Commission's competition concerns. The competition issues at stake concerned, in several cases, so-called 'territorial restrictions' in Gazprom's gas supply contracts, prohibiting the resale of gas outside the own country[12], as well as evidence that Gazprom was engaged in unfair pricing practices and made energy supplies dependent on political concessions from participation in Russian pipeline projects or acquiring control over Union energy assets[13].

The 2021-2022 crisis is the ultimate example of how dependency on Russia's supply carries dramatic risks for the EU security of supply. The crisis was caused by Russia's manipulation of the gas markets mainly through supply cuts that were initiated in 2021 and continued throughout 2022. In 2021, at a moment when demand was growing significantly in the aftermath of Covid-19, Russia first reduced gas supplies across distinct episodes, to Poland and Germany via Yamal, but also to Slovakia and Hungary. Gazprom halted selling volumes at EU gas hubs[14] and from mid-October 2021, Gazprom fully discontinued the use of its own sales platform. Second, Russia lowered injections in the European storages that were under the ownership or contractual control of Gazprom. As reported by ACER,[15] "*at the end of October 2021, Gazprom storage stocks were at an unprecedented low level of 25%, which was three times lower than the average of the rest of the EU facilities*". ACER estimated that "*half of the storages' filling gap on 31 October 2021, in comparison to the five-previous years, must be at least attributed to Gazprom's behaviour*". This led to the EU reaching only 75% of storage filling on 1 October 2021, the lowest historical level. Following the full-scale invasion of Ukraine in February 2022, Russia responded with a series of disruptions of gas deliveries to its EU customers. For example, in April 2022, Gazprom halted deliveries to Poland and Bulgaria, following a unilateral change in contractual terms by Russia. Finland was also cut off in May 2022 after applying for NATO membership. In June-July 2022 Russia first reduced and eventually shut down entirely Nord Stream 1.

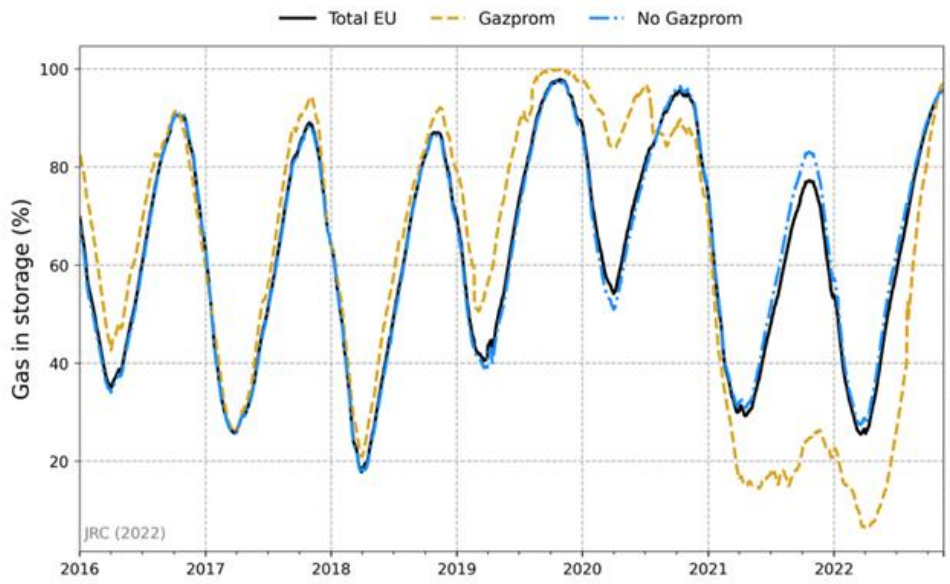
[12] See for the competition investigations concerning territorial restrictions between 2003 and 2005 see: ec.europa.eu/commission/presscorner/detail/en/ip_05_710; ec.europa.eu/commission/presscorner/detail/en/ip_03_1345; ec.europa.eu/commission/presscorner/detail/en/ip_05_195; for the investigation in the Gazprom II case, see Commission Decision C(2018) 3106 final of 24 May 2018 relating to a proceeding under Article 102 of the Treaty on the Functioning of the European Union (TFEU) and Article 54 of the EEA Agreement, Case AT.39816 – Upstream Gas Supplies in Central and Eastern Europe.

[13] See https://ec.europa.eu/commission/presscorner/detail/en/memo_15_4829 See https://ec.europa.eu/commission/presscorner/detail/en/memo_15_4829

[14] ACER "European gas market trends and price drivers 2023 - Market Monitoring Report" (para. 28).

[15] ACER "European gas market trends and price drivers 2023 - Market Monitoring Report"

Figure 2: Gas in storage (%) in Gazprom Storages vs non-Gazprom storages



Source: JRC, 2024.

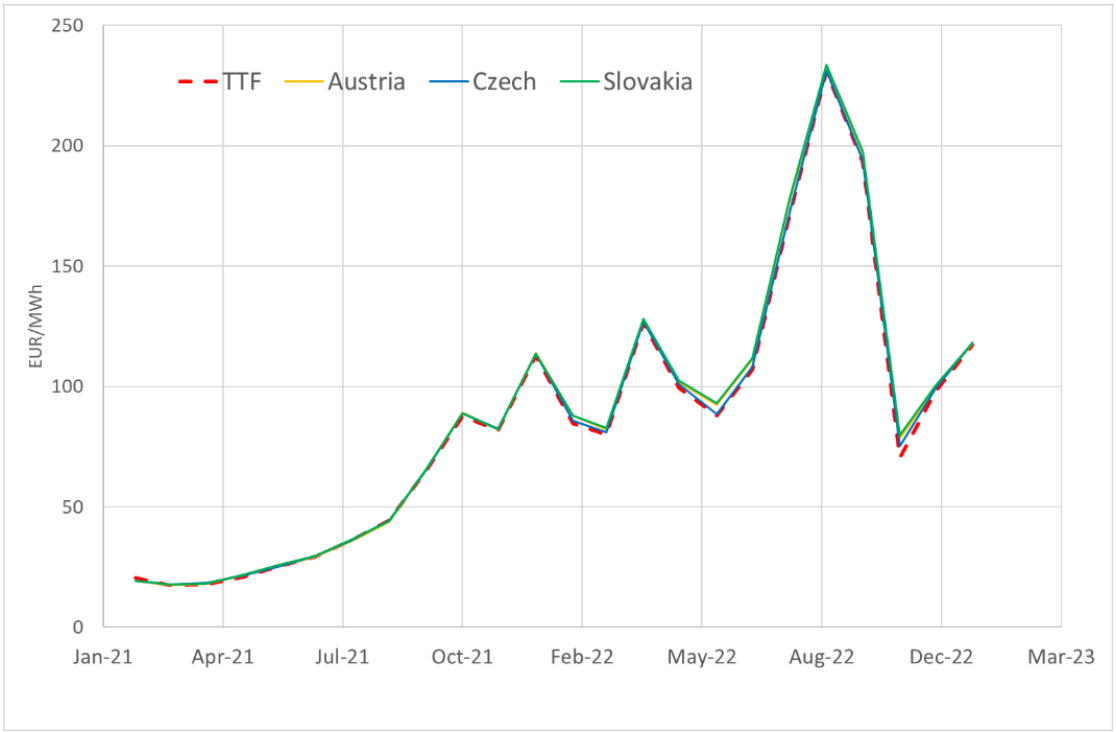
While the existing infrastructure at the time allowed Member States to face these hostile supply cuts from Russia in 2022, such conducts by Russia cast great uncertainty on the possible scarcity of gas in Europe and their impact on prices was unprecedented. Pre-crises, average spot gas prices in Europe fluctuated around 15-20 €/MWh. As of mid-2021, prices started rising well above this level (more than 70 €/MWh in the second half of 2021). The situation further deteriorated in 2022 and saw the prices progressively increasing and reaching levels above 300 €/MWh in summer 2022.

Figure 3: TTF day-ahead prices vs Russian pipeline imports to the EU, 2022

Source: ACER - "European gas market trends and price drivers 2023 - Market Monitoring Report"

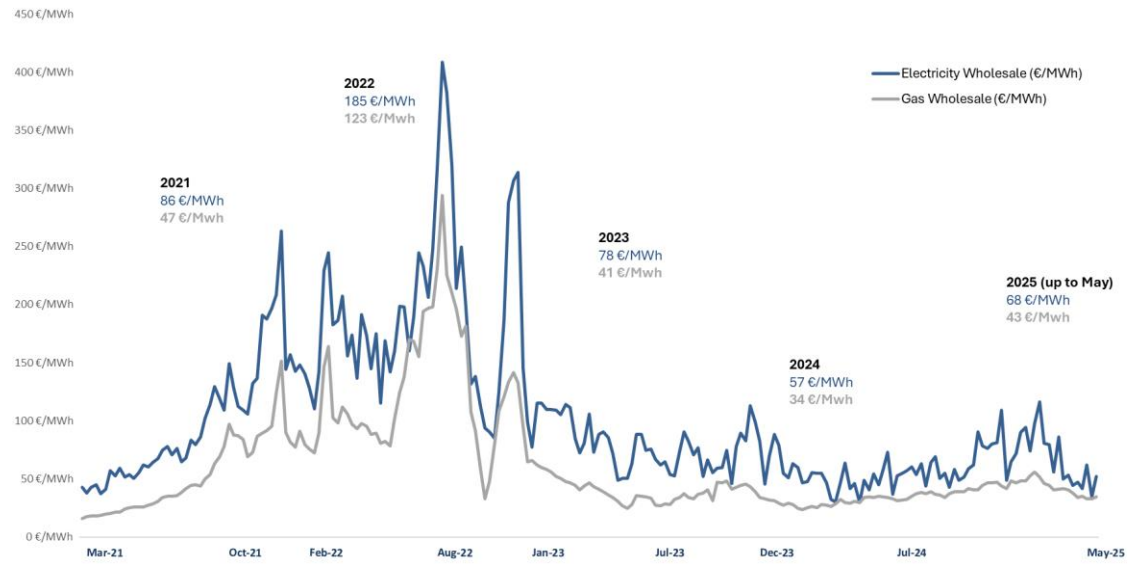
The average gas spot price in 2022 was 125 €/MWh, 6 to 8 times higher than pre-crisis. The effects of the crisis were felt across the EU. Even those Member States – in the South-Eastern region – which did not experience any direct disruption of the gas flow from Russia were equally affected by the crisis and saw prices spiking to unprecedented levels. For example, the average prices in the Austrian, Czech and Slovakian gas hubs in 2021 and 2022 were very close to the average prices observed on the Dutch TTF, the EU gas benchmark (see Figure 4).

Figure 4: TTF prices vs gas prices in Austrian, Czech and Slovak hubs, 2021 – 2022



The consequences of the gas crisis provoked by Russia spun to the electricity sector as gas generation often represent the price setting technology in the electricity wholesale markets.[16] Electricity wholesale prices in Europe skyrocketed at the worst moments of the crisis in August 2022 to average more than 400 €/MWh, with short-lived peaks of few days in most countries well above 500 €/MWh. In 2022, average wholesale electricity prices were 185 €/MWh, almost 100 €/MWh more than the average price of 2021.

Figure 5: TTF vs electricity prices, March 2021- May 2025

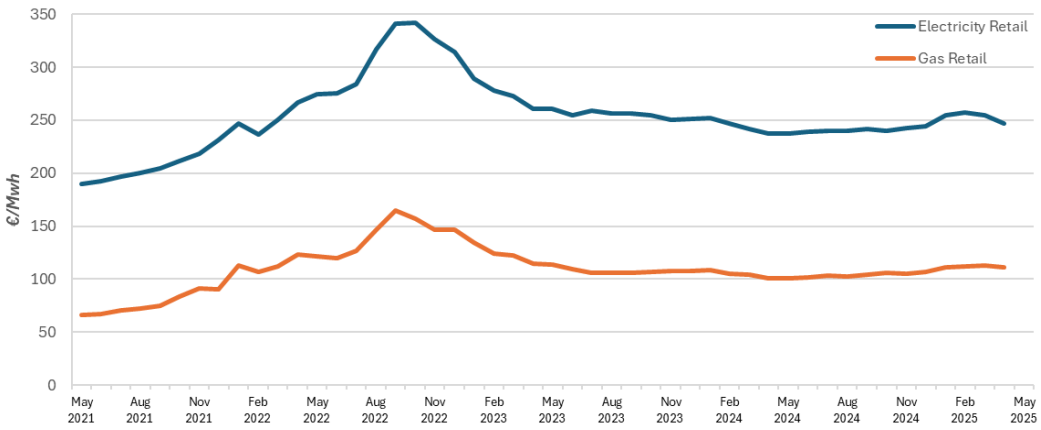


Source: DG ENER based on S&P Global Platts
Note: Gas wholesale prices are TTF month-ahead. Electricity wholesale prices correspond to the weighted average prices of main EU electricity markets (DE, ES, FR, NL) and Nordpool market (NO, DK, FI, SE; EE, LT, LV)

The EU wholesale energy market suffered serious repercussions; these soon trickled down to the retail markets and final consumers. Consequently, energy prices were the most important driver of the significant increase in inflation, which at its peak reached levels above 10% in 2022.

[16] Gasparella A., Koolen D. and Zucker A., The Merit Order and Price-Setting Dynamics in European Electricity Markets, European Commission, Petten, 2023, JRC134300

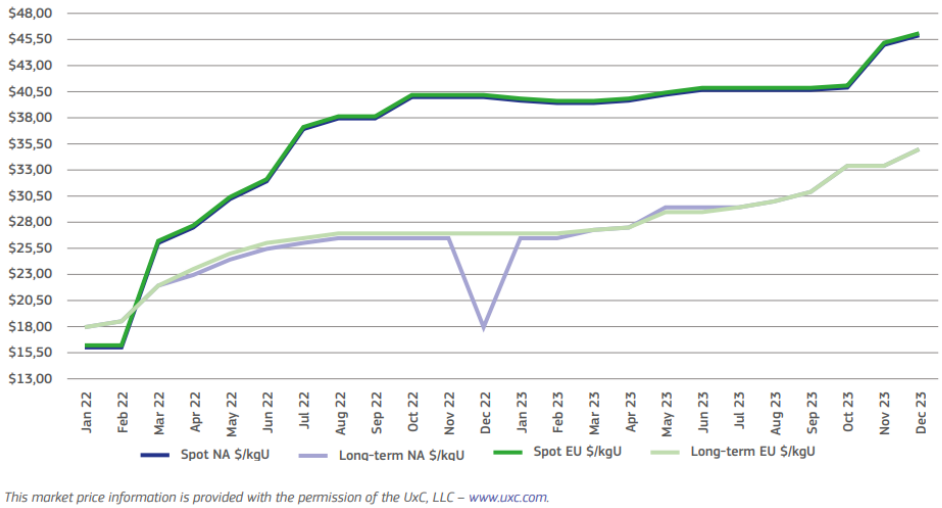
Figure 6: EU gas and electricity prices, 2021-2025



Source: VaasaETT

Concerns about Russia's cut of existing supplies affected also the nuclear sector. Figure 7 below shows that spot prices for uranium conversion more than doubled in the space of a few months after February 2022 and have remained at, or above, 40 $/KgU since. The prices for uranium enrichment[17] experienced a similarly drastic increase after the Russian invasion of Ukraine, rising from 60 $ to more than 130 $.

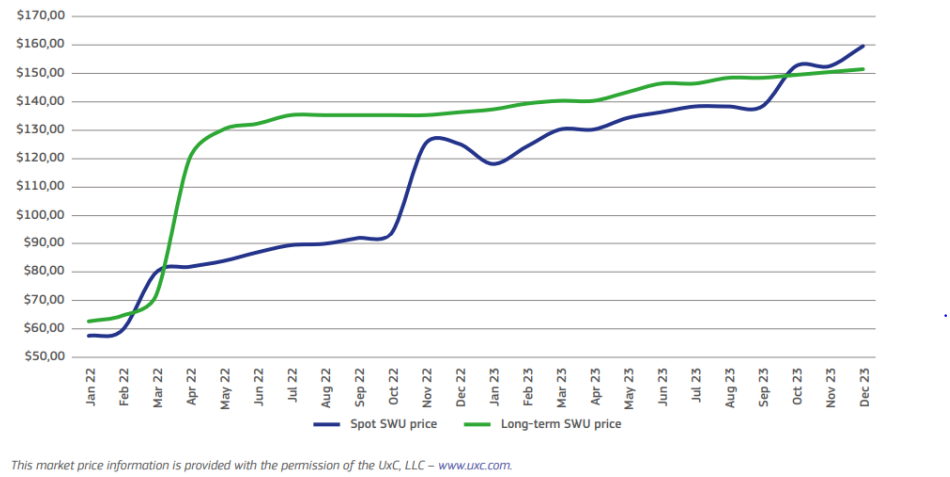
Figure 7: Uranium conversion price trends (in USD)



Source: Euratom Supply Agency annual report 2023

[17] Separative Work Unit (SWU)

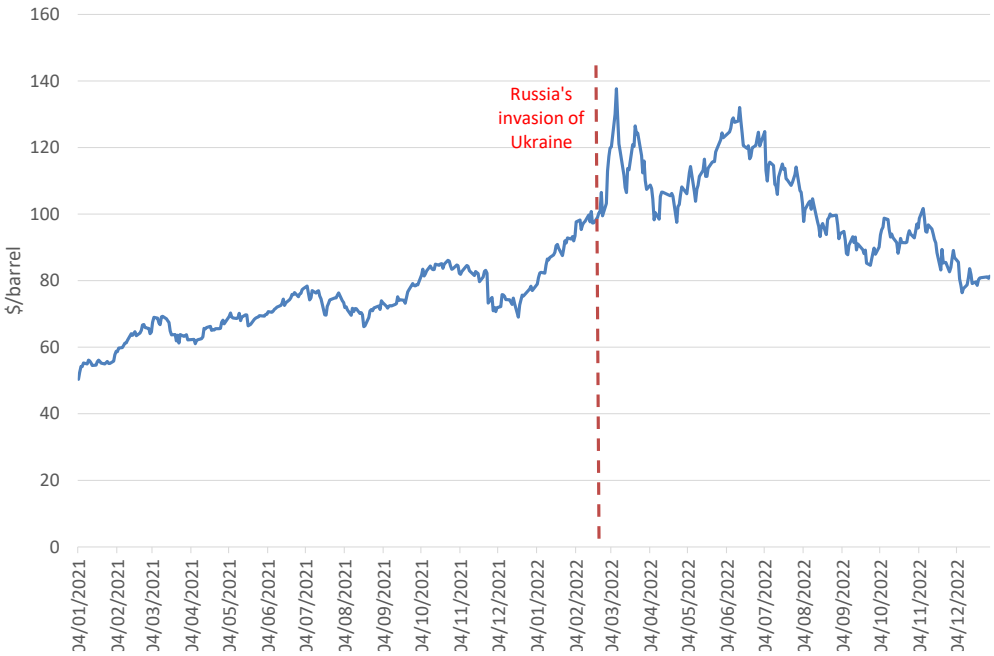
Figure 8: Monthly spot and long-term SWU prices (enrichment) (in USD)



Source: Euratom Supply Agency annual report 2023

The oil market was hit by the crisis too. Russia was the largest exporter to the EU with a share of 27%. When Russia invaded Ukraine the prices of crude oil started raising quickly out of fear of disruptions to Russia's supplies to the EU, peaking at almost 140 $/barrel and remaining stably above 100 $/barrel until September 2022 (see Figure 9).

Figure 9: Brent prices – 2021-2022



Source: S&P Commodity insights

3. Current situation and need for action

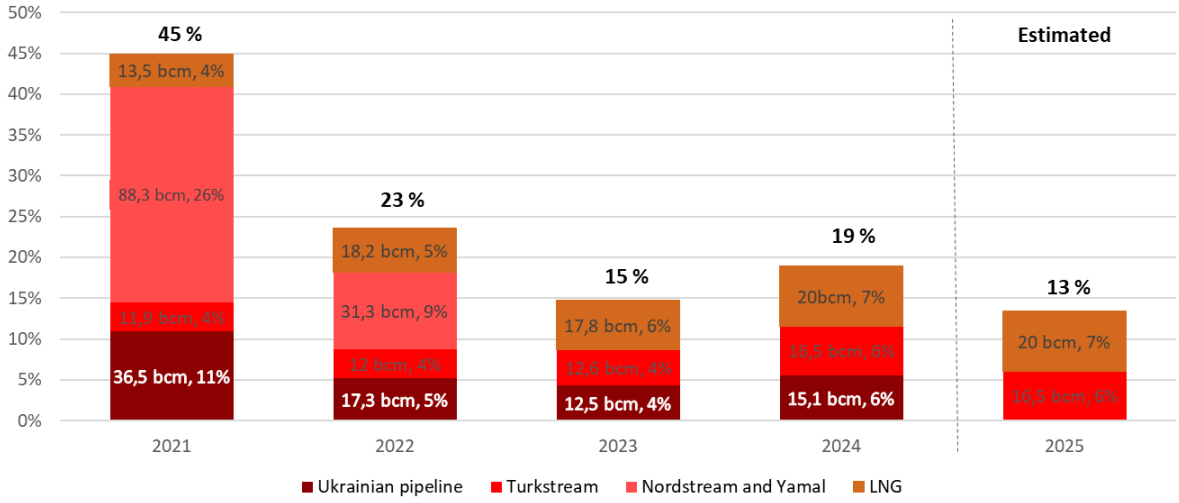
3.1. Natural gas

Before the crisis, the EU used to import more than 150 bcm/y from Russia. Between 2021 and 2023, the EU reduced Russian gas imports by over 70% to 43 bcm/y. In 2024, this

downward trend stopped and imports from Russia increased somewhat, while remaining significantly below the pre-war levels of dependency. LNG imports grew by 12% compared to 2023, from 18 bcm/y to 20 bcm/y, and pipeline by 26%, from 25 bcm/y to 32 bcm/y.

Several Member States have taken early actions to reduce or even ban Russian gas imports, including by terminating existing contracts with Russian gas suppliers[18]. However, even after the end of Russian gas transit through Ukraine in 2025, Russian gas is estimated to represent still around 13% of the EU's overall gas imports in 2025.[19]

Figure 10: Russian imports into the EU: Pipeline and LNG (volumes and share of total EU gas imports)



Source: DG ENER based on LSEG and ENTSOG

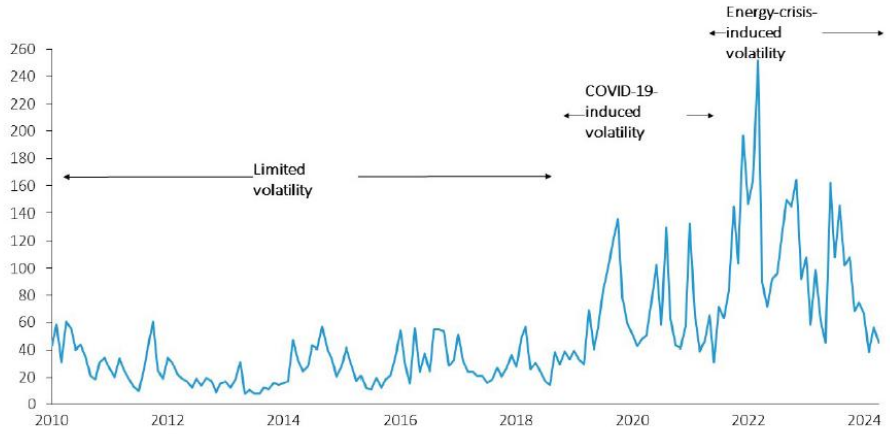
Despite the substantial reduction in the dependency on Russia, the EU remains at risk. The volume sourced from Russia should not be considered negligible. While the EU can replace Russian gas without risks for security of supply if the phase out is anticipated and well-planned in advance (see Section 4.3.1), a sudden and unexpected halt of this volume would still be capable to cause security of supply concerns in the short term. Any volume shift to alternative suppliers of such magnitude (approx. 35 bcm per year) would require some time for the industry to adapt, both logistically and commercially. The end of the transit of Russian gas via Ukraine shows how the anticipation and preparation by the Commission and the concerned Member States was important to avoid risks for the security of supply. Thanks to proactive measures and collaborative efforts, the EU was well-equipped to handle the transition. In an assessment conducted in late 2024[20], the Commission indicated that the impact of the end of transit via Ukraine on the EU's security of supply was expected to be limited. The 14 billion cubic meters per year still transiting via Ukraine could be fully replaced by LNG and non-Russian pipeline imports via alternative routes, demonstrating the flexibility and resilience of the European gas infrastructure. A meeting of the Gas

[18] Estonia, Lithuania, Latvia, Denmark, Finland, Sweden, Germany, Poland, Croatia, Malta, Ireland, Luxembourg, Austria and Czechia have prohibited or stopped gas supplies from Russia. Some Member States could, however, be indirectly supplied with gas of Russian origin through wholesale market purchases.
[19] In the first quarter of 2025, the share of Russian supply in the EU imports was 14%.
[20] End of transit via Ukraine – Information from the conclusions of the Commission's assessment

Coordination Group[21] on 2 January 2025 confirmed that no concerns related to the security of gas supply had been identified with the stop of Russian gas flows to the EU. Absent such proactive planning and coordination in phasing-out Russian gas, the EU could be vulnerable to Russia's sudden supply disruptions.

The reliance on Russian gas also raises price risks. Despite the significant drop since the peak of the crisis in 2022, prices remain higher and more volatile than pre-crisis (see Figure 11), and the EU is now more exposed to the LNG global market and as a consequence to shocks occurring in other regions of the world (LNG share in the EU mix doubled since the crisis, from about 20% to 40%). In this context, Russian unpredictability and long history of attempts to weaponise the energy sector for geopolitical purposes creates additional uncertainty and risks. This in turn translates into higher volatility and thus higher hedging costs for market operators.[22]

Figure 11: TTF price volatility over time



Source: European Commission based on S&P Global (published in The future of European competitiveness, Part B | In-depth analysis and recommendations)
Note: TTF month ahead, %

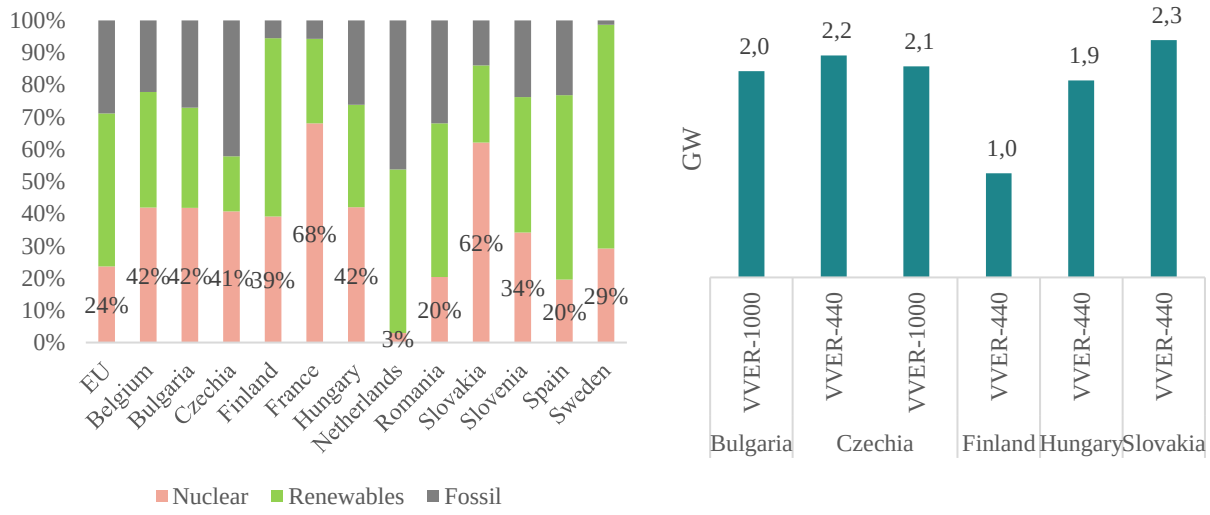
In view of the above, the Commission considers it of paramount importance to phase out all the remaining natural gas import volumes from Russia. These volumes, however, are not expected to be eliminated without further action at the European and Member State levels, either because the majority of imports come under long-term contracts, which often envisage take-or-pay obligations that cannot be waved without incurring litigation risks (see Section 4.4), or because Russia, in an attempt to preserve its share of supply to the EU, may sell certain volumes at large discount, thereby discouraging European companies to look for alternative sources. By imposing a firm halt to Russian gas imports, the trade measures included in this proposal enable to overcome these obstacles.

[21] Commission and Member States confirm no gas supply concerns in the New Year - European Commission
[22] Europe's Rising Gas-Hedging Costs Show Supply Fears Persist - Bloomberg

3.2. Nuclear

In the EU, net nuclear power production of 617 TWh contributed 24% to the overall power mix in 2024 (see Figure 12). There are 101 nuclear power reactors operating in 12 EU Member States with a combined net electrical generation capacity of 98 GWe, of which 19 reactors are Russian-designed *pressurised water reactors* ('VVER') with a total capacity of ca. 11.5 GWe. The VVER reactors are located in five Member States: Bulgaria, Czechia, Finland, Hungary and Slovakia. Further, there are three VVER reactors in construction at different stages of completion in Hungary and Slovakia.

Figure 12: The share of nuclear in the electricity mix in 2024 (LHS) and the generation capacity of VVER reactors (in GW) (RHS) by Member State



Source: DG ENER based on Ember, Apis-project.eu and Euratom Supply Agency annual report 2023

The nuclear fuel cycle is the series of industrial processes that involve the production of energy from uranium in nuclear power reactors. The front-end of the nuclear fuel cycle involves i) extracting uranium ore through mining, ii) converting it to uranium hexafluoride gas for enrichment (conversion to natural UF6), iii) increasing the concentration of the fissile isotope U-235 (enrichment to enriched UF6), and iv) fabricating it into fuel pellets, assembled into rods and fuel assemblies, ready for use in nuclear reactors.[23]

Russia, largely through bundled contracts, supplies products and services to EU customers across the whole front-end nuclear fuel cycle. The EU utilities then receive finished products, either enriched uranium products or the fuel. The share of Russian supplies at each stage is as follows (see Figure **)**.

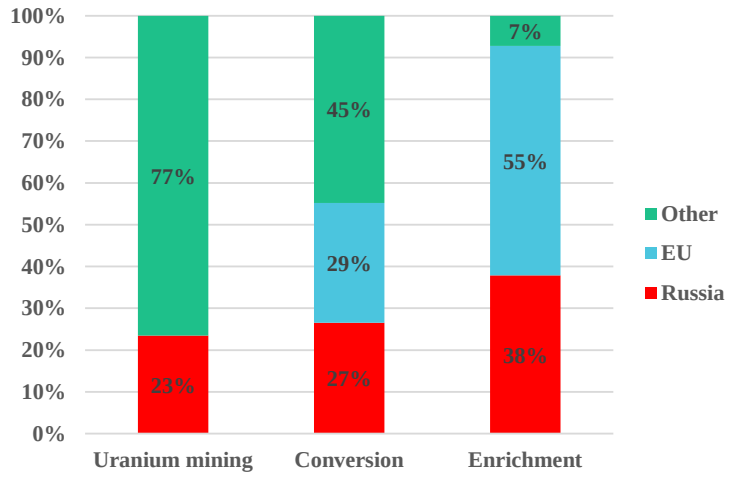
- Natural uranium: Around 23% (or 3,419 tonnes of Uranium (tU)) of natural uranium imported to the EU originated directly from Russia in 2023. Effectively, however, including indirect supplies via intermediaries in other countries[24], this share increases to over 26%. This positions Russia as the second largest supplier of natural uranium to the EU, after Canada (33%). A preliminary analysis by the Euratom Supply Agency

[23] The 'back end' of the fuel cycle includes the steps of temporary storage, reprocessing, and recycling before the waste is disposed.
[24] This primarily affects intermediaries in Kazakhstan.

indicates that in 2024, uranium supplies from Niger and Russia saw a substantial decrease, while supplies from Australia returned to 2020 levels, increasing by a factor of over 3. Additionally, China appeared as a supplier for the first time.

- Conversion services: In 2023, the EU relied on Russia for 27% (or 3,543 tU) of its conversion services. Preliminary data indicates a decrease in Russia's share to 23% in 2024.
- Enrichment services: Russia's share was 38% (or 4,647 tSW[25]) in 2023, a particularly large share resulting from the fact that European companies increased their inventory of enriched uranium in 2023 to secure supply in the face of a volatile international context. Preliminary data indicates a decrease in Russia's share to 24% in 2024.

Figure 13: Russian supplies along the EU's nuclear fuel cycle, 2023



Source: DG ENER based on Euratom Supply Agency annual report 2023
Note: In 2024, based on preliminary data, the share of Russian supplies to meet EU demand decreased to 23% for conversion services and 24% for enriched uranium.

- In fuel fabrication, the dependency is most significant in the five Member States using the VVER reactors which account for 23% of Finland's nuclear power capacity and 100% of that in Bulgaria, Czechia, Hungary and Slovakia.

Some Member States, in particular those with VVER reactors, also rely on Russia for critical technology, spare parts and maintenance and other related services. However, transparency about the nature of the parts and services sourced from Russia – and the extent to which Member States depend on Russia for these parts and services – is limited. As part of their national phase-out plans, Member States are therefore expected to gather systematic information on all supplies from Russia and this will provide the basis to develop concrete plans and actions to diversify away from Russia.

The EU dependency on Russia across the nuclear supply chain constitutes a serious risk for the Union's security of supply. In the five Member States operating VVER reactors, nuclear-

[25] The separative work unit (SWU) is the common unit for enrichment and indicates the energy input relative to the amount of uranium processed, the degree to which it is enriched and the level of depletion of the remainder.

based generation contributes between 39% to 62% to the country's electricity production. If this generation capacity was not available because of disruptions in the supply of nuclear material, the repercussions could be very serious as the non-nuclear capacity may not be sufficient to compensate for the nuclear production, especially at times of high demand. Even if generation from other sources and imports from neighbouring Member States could compensate for the missing nuclear generation, the effects on prices could be significant. The absence of nuclear generation would require calling into operation more expensive plants which would set the wholesale price at a significantly higher level.[26] This in turn would have knock-on effects on retail prices. It has been estimated that the peak in wholesale electricity prices in 2022 was followed by an increase in retail prices of 46% of the increase in wholesale prices on average, and the pass-through was as high as 135% in some Member States.[27]

The dependency on Russia in the nuclear sector jeopardises not only the security of electricity supply but also nuclear safety and security, in particular in case of supply disruptions of critical technology, spare parts and maintenance and other related services, with potential economic, societal, health and environmental consequences, in turn leading to a serious risk to the overall EU security and autonomy. Russia's lack of commitment to nuclear safety and security is demonstrated by Russian military activities around the Ukrainian nuclear facilities since the start of the war in 2022. Russia's military objectives appear to take precedence over nuclear safety and security in cases such as the intrusion of Russian troops into the Chernobyl exclusion zone in the beginning of the war as well as the occupation of the Zaporizhzhia nuclear power plant in Ukraine (ZNPP). At the ZNPP, the competent nuclear safety regulator no longer has the necessary access to ensure that applicable national and international nuclear safety standards are being upheld. Attacks against nuclear installations such as the sustained targeting of the Kharkiv Institute of Physics and Technology or targeting of nuclear power plant infrastructure such as emergency power lines necessary for safe operation, violate all the seven indispensable nuclear safety and security pillars outlined by the International Atomic Energy Agency at the beginning of the conflict.[28,29] Moreover, in 2023, Russia rescinded the ratification of the Comprehensive Nuclear Test Ban Treaty, further putting into question its commitment to nuclear safety and non-proliferation.

More generally, Russian nuclear power plant building projects in the EU and beyond, such as the ones constructed or operated by Rosatom, have embedded hybrid threat potential, where spillovers to different domains such as intelligence, legal, economic, information, social, infrastructure, political and military can be used to exert powerful leverage. Rosatom is part of the Russian state's foreign policy and any deal for nuclear power plant construction has objectives aside from economic ones.[30]

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[26] Zani, A., Blanco, M. P., Purvins, A., & L'Abbate, A. (2019, September). Impact of nuclear supply outage on the European electricity system. In 2019 16th International Conference on the European Energy Market (EEM) (pp. 1-5). IEEE.

[27] European Commission, Quarterly Report on the Euro Area Volume 22, No 2 (2023).

[28] https://www.iaea.org/sites/default/files/documents/nuclear-safety-security-and-safeguards-in-ukraine-feb-2023.pdf

[29] IAEA Director General Grossi's Initiative to Travel to Ukraine | IAEA

[30] Nuclear energy and the current security environment in the era of hybrid threats - Hybrid CoE - The European Centre of Excellence for Countering Hybrid Threats

Dependencies on Russia in the nuclear sector are technically complex covering natural, converted and enriched uranium, nuclear fuel assemblies, spare parts and maintenance services and medical radioisotopes. They fall within the purview of the Euratom Treaty, as lex specialis, in addition to TFEU. This implies different structure for the assessment of impacts and for the different legal bases of the legislative proposals foreseen under the Roadmap for nuclear than those for oil and gas (exclusively under the TFEU for gas and oil and under both Euratom and TFEU for nuclear). The legislative procedures required according to the different legal bases will also differ. It is thus important to ensure a common understanding among all stakeholders of the impact of these dependencies and the measures necessary to end the nuclear supplies from Russia. A practical solution is therefore to decouple the legislative proposals for the two workstreams, with oil and gas being tabled first in mid-June 2025 and nuclear envisaged soon after at a later date. This will allow for the definition of a clear path to the adoption through dedicated preparatory discussions with the nuclear industry and the legislator. In view of this, the remaining part of this staff working document will not discuss further the measures related to nuclear.

3.3. Oil

In June 2022, the EU adopted the sixth package of sanctions which included an import ban on all Russian seaborne crude oil from December 2022 and petroleum products from February 2023.

As a result, the share of Russian crude oil dropped from 27% of the EU imports in 2022 to 3% in 2024.[31] The remaining imports come mostly via pipelines which have benefitted from temporary exemptions from the EU sanctions regime. Three Member States were served by Russia via pipeline: Czechia, Slovakia and Hungary. However, since April 2025 Czechia no longer imports Russian oil. That was made possible thanks to the completion of the TAL-PLUS project that expanded the capacity of Transalpine pipeline transporting oil from the Italian terminal in Trieste to the refineries in Central-Eastern Europe (see Box 3 below with more details on Czechia's successful phase out of Russian crude oil).

Yet, for Slovakia and Hungary, Russian oil through the Druzhba pipeline through Ukraine still represents over 80% of their total oil imports[32] with the remaining 20% imported via the Adria pipeline through Croatia. The high dependency for those countries poses a risk for their security of supply as Russia may unilaterally and abruptly cut or reduce the oil flow, as it did with gas. This may have consequences also for Slovak and Hungarian downstream markets of refined products. There is one oil refinery in Slovakia which works in close coordination with another refinery in Hungary as both refineries are operated by MOL. The Slovak refinery produces several petroleum products (e.g. diesel and gasoline) and accounts for virtually all of Slovakia's domestic demand. Similarly, the production of the Hungarian refinery (diesel and gasoline) is essential to serve the domestic demand, covering more than 80% of Hungary's consumption. As acknowledged by MOL, the company operating the two refineries receiving Russian crude oil, its refining business is exposed to the risk of disruption

[31] This share has further dropped in 2025 since Czechia stopped importing from Russia in April.
[32] According to COMEXT information from 2024 and 2023.

of the physical flow coming from Russia: "*The physical flow of the crude oil from Russia has been periodically disrupted due to war damage on Ukrainian energy infrastructure*".[33]

4. Measures on Russian gas supplies

The gas-related measures envisage a comprehensive set of actions to support and ultimately achieve the complete phase out of Russian gas. These include:

- a prohibition of gas imports based on new contracts concluded after [17 June 2025] - by the end of 2025, and a ban of the remaining imports based on existing contracts by the end of 2027;
- a prohibition to provide services in EU LNG terminals to customers from the Russian Federation as of 1 January 2026, with a transition phase of the prohibition for existing LNG terminal services contracts until 31 December 2027 for services provided under long-term contracts;
- an obligation for Member States to have an active role in the phase out of their Russian gas, direct or indirect, imports by preparing and adopting national diversification plans with detailed measures and milestones; and
- proposals to improve the transparency, monitoring and traceability of Russian gas across the EU markets by (i) facilitating the exchange of information among relevant national authorities in Member States and the Commission and (ii) enhancing transparency on contracts for Russian gas.

This section is structured as follows: (i) it discusses the available alternatives to replace Russian gas; (ii) it provides an overview of the status-quo of the development of the infrastructure to receive and transport gas in the EU; and (iii) it assesses the impact of the measures set out in the proposal from an economic and legal perspective.

4.1. Available alternatives to replace Russian gas

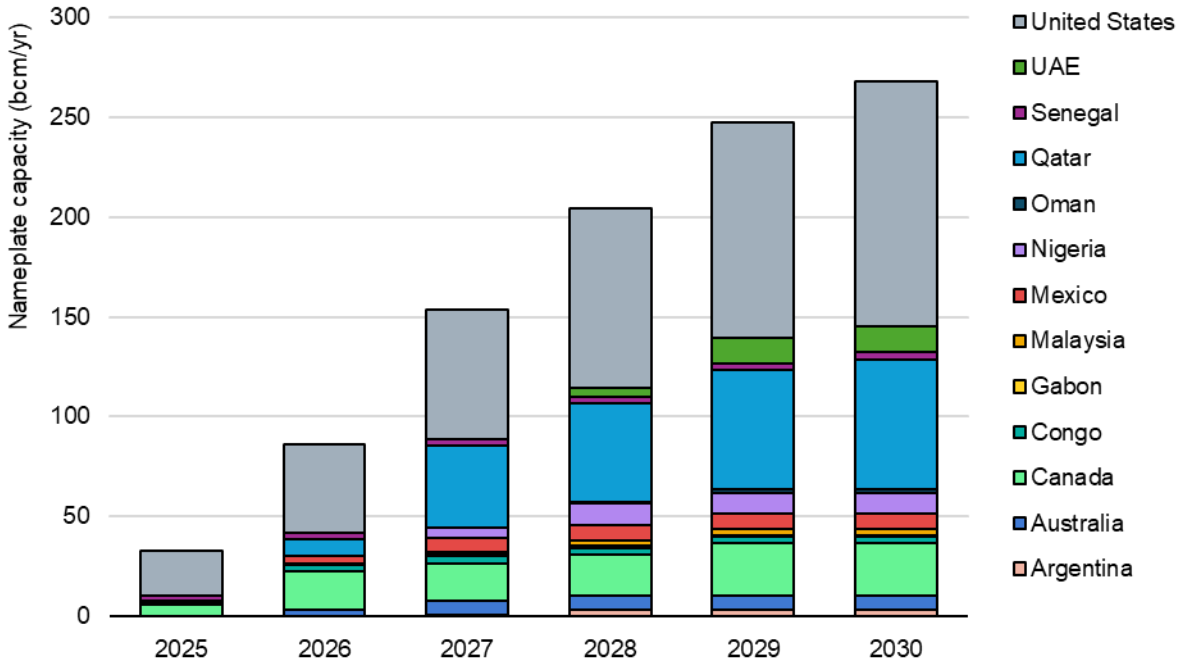
Since the beginning of the crisis, the EU has been increasingly reliant on LNG, which played a fundamental role in replacing Russian pipeline gas imports. EU imports of LNG from non-Russian countries went from 60 bcm in 2021 to more than 100 bcm/y in two years (2023). LNG of non-Russian origins accounts now for not less than 30% of the EU imports, twice as much as the pre-crisis level.

As of 2025, the LNG global supply is set to grow significantly - and at increasingly fast pace - with 33 bcm of additional capacity in 2025, more than 50 bcm in 2026, nearly 70 bcm in 2027, and 50 bcm in 2028. This will increase the total LNG capacity by about 200 bcm by 2028, five times more than the EU imports of Russian gas.[34] Overall, between 2025 and 2030, close to 270 bcm/y of new LNG export capacity is expected to come online from projects that have already been approved. This represents the largest capacity wave in any

[33] MOL Group Integrated Annual report 2024.
[34] IEA (January 2025) "Gas Market Report, Q1-2025"

comparable period in the history of LNG markets.[35] While some of those projects are unlikely to supply gas directly to Europe, they would free up supplies from other parts of the world that can then serve the EU markets.

Figure 14: Cumulative LNG liquefaction capacity additions from post-FID projects, 2025-2030



Source: International Energy Agency[36]
Note: status on 15 May 2025

More supply from sources other than LNG will also become available in Central and South-East Europe, a region traditionally dependent on Russian pipeline supplies. As of 2027 the Neptun Deep offshore gas field in Romania is expected to produce 8 bcm/y of natural gas in the first 10 years of its operation. Also, from 2026, the capacity of the Trans Adriatic Pipeline will be expanded by 1.2 bcm allowing increased gas imports from Azerbaijan.

4.2. *Status of the EU infrastructure*

Over the past years, the EU has diversified its energy supply sources and routes and strengthened its security of supply. Thanks to the EU policies and financial support through the Connecting Europe Facility (CEF), the European Energy Programme for Recovery (EEPR), cohesion policy funds and other EU instruments, a number of key gas (and electricity) infrastructure projects in Central and Eastern Europe have come online making the EU energy system more resilient to disruption. Since 2014, the EU has disbursed nearly 8 billion EUR to interconnect and reinforce the energy infrastructure of EU countries, including more than 1,6 billion EUR for gas Projects of Common Interest (PCIs) under CEF,

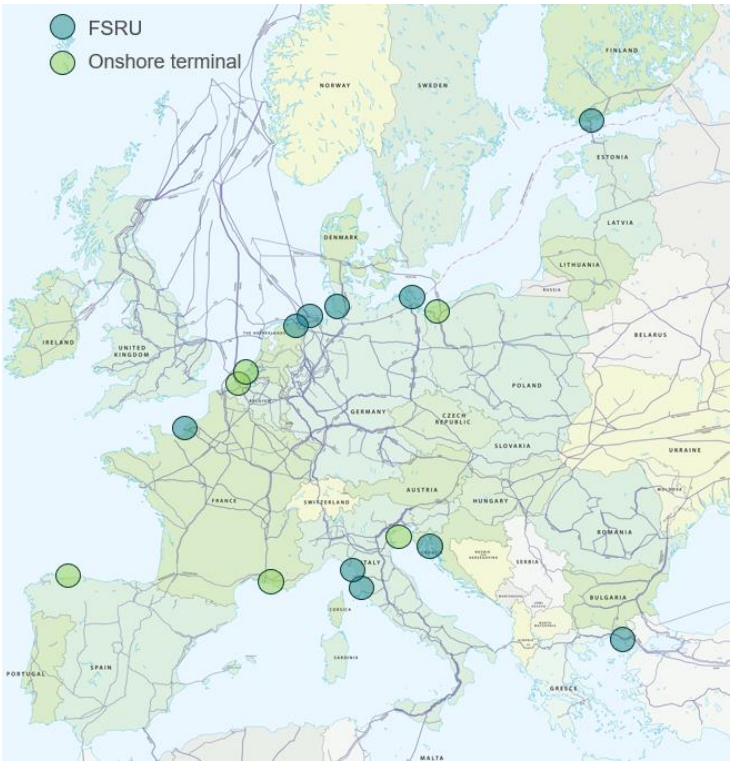
[35] This figure excludes capacity additions from Russia's Arctic LNG 2 project (27 bcm/y), Mozambique LNG (18 bcm/y), and Qatar's North Field West expansion (22 bcm/y) — all of which have been approved but are not progressing toward normal commercial operation for various reasons.
[36] See Global LNG Capacity Tracker – Data Tools - IEA

contributing to the security of supply, gas market integration and competitiveness of EU energy markets.

4.2.1. LNG import capacity

Between 2022 and 2024 a record of twelve new LNG terminals and six expansion projects were commissioned, adding 70 bcm of LNG import capacity to the EU, including the former Project of Common Interest, Alexandroupolis LNG terminal in Greece (5,5 bcm/y). Before this period, the EU supported the realisation of two PCI projects, namely the LNG terminals in Świnoujście (Poland) and on the Krk island (Croatia)[37]. Additional capacities have been deployed in Northern as well as in South-Eastern regions of Europe, giving closer access to LNG to landlocked countries and ensuring a balanced geographical distribution of receiving facilities across the EU, which is essential for the efficient pipeline transportation of gas to the nearest consumption centres. The map below shows the location of the new regasification plants deployed since 2022.

Figure 15: Location of new LNG regasification capacities in the EU since 2022



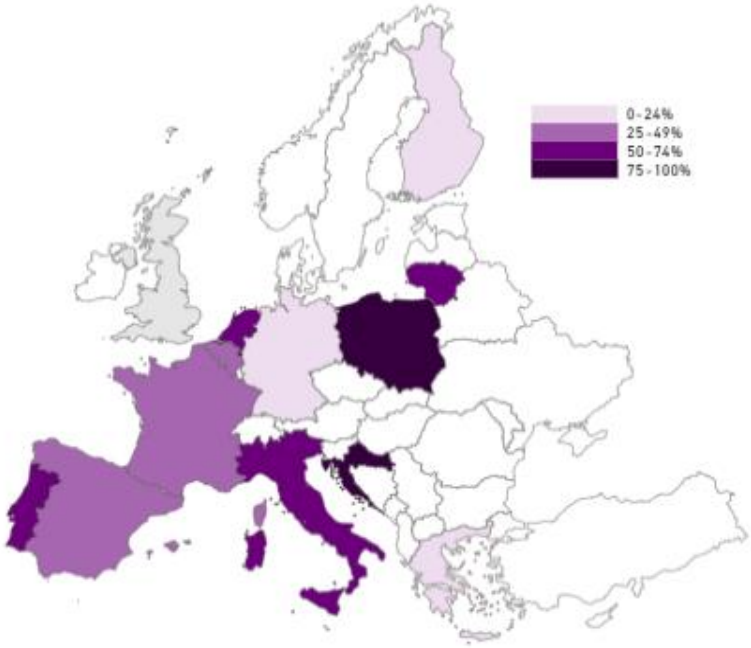
Source: DG ENER based on ENTSOG
Note: the map also shows the Krk terminal in Croatia which was commissioned before 2022 but whose capacity was expanded in reaction to the crisis.

The EU's total LNG import capacity now amounts to approximately 250 bcm/y, more than twice the current LNG imports. The average utilisation of this capacity was 'only' 42% in

[37] The LNG terminal in Swinoujscie, Poland had capacity of 5 bcm/y after completion in 2016. Expansion project of the terminal was also a PCI project and allowed the ter
minal to increase its regasication capacity to 8,3 bcm/y. The FSRU terminal in Krk was inaugurated in 2021 and had an initial capacity of 2,6 bcm/y. Its current regasification capacity has reached 3,5 bcm/y.

2024. This suggests that the EU has plenty of spare capacity to accommodate for additional LNG import to replace Russian supplies.

Figure 16: Regasification capacity utilised by country (%) in 2024



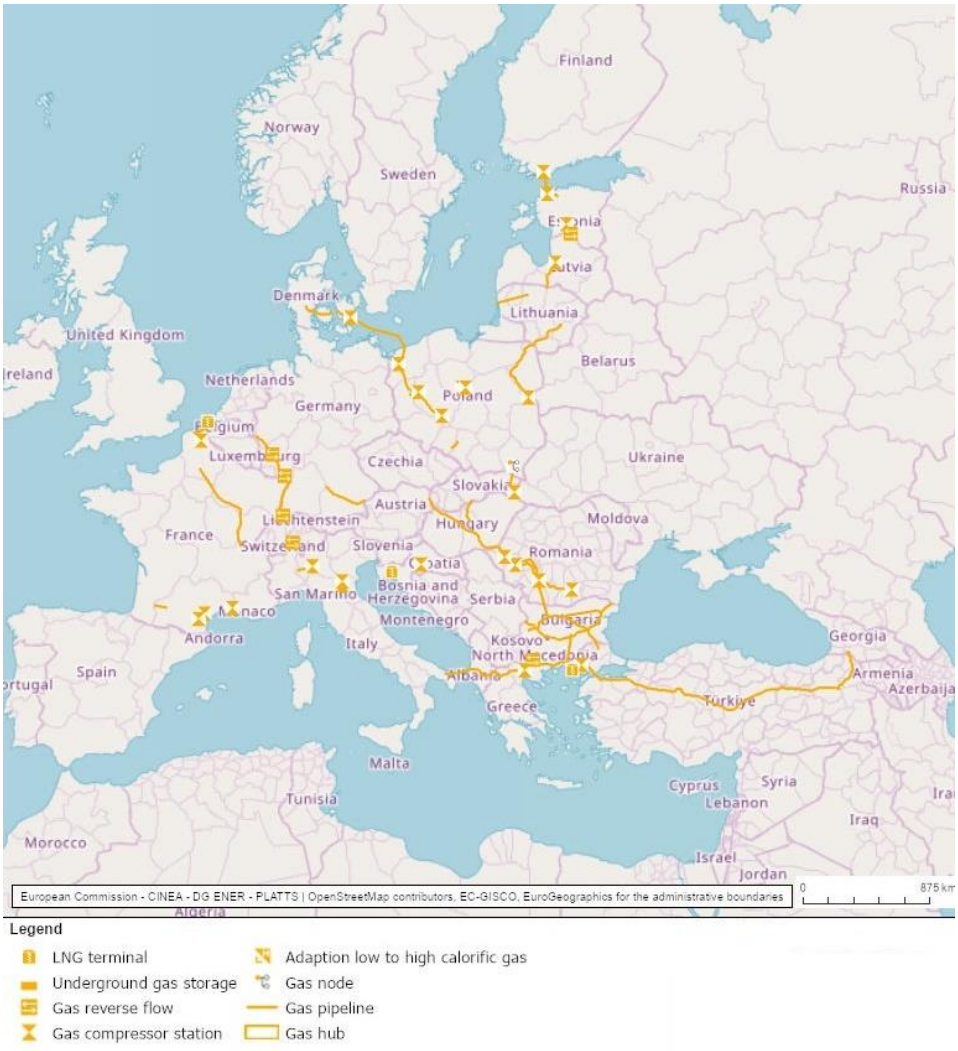
Source: Joint Research Centre based on ALSI-GIE[38]

4.2.2. Cross-border interconnection capacity

The EU's gas interconnection has also been substantially enhanced thanks to the completion of key interconnectors as well as internal reinforcements of the transmission systems. Before Russia's invasion of Ukraine, critical (former) Projects of Common Interest were completed in the EU, in particular in Central-Eastern and South-Eastern Europe, regions traditionally dependent on Russian pipeline supplies. Table 2 provides a comprehensive overview of the Projects of Common Interest in CEE and SEE regions completed so far and Figure 17 shows where these projects were located.

[38] JRC Gas SOS Dashboard Microsoft Power BI

Figure 17: Completed Gas Projects of Common Interest



Source: PCI-PMI Transparency Platform

Table 2: Completed Projects of Common Interest in Central-Eastern and South-Eastern Europe

Project	Description
The Slovakia – Hungary Gas Interconnection	Onshore pipeline between Vel'ké Zlievce, Balassagyarmat and Vecsés connected Slovakia and Hungary, establishing the foundations for gas transmission within the North-South gas corridor between Central Eastern and South Eastern Europe. The current capacity from Hungary to Slovakia is 2,4 bcm/y with a pilot firm capacity at the level of 3,5 bcm/y. Current capacity from Slovakia to Hungary is 4 bcm/y.
Southern Gas Corridor, including Trans Anatolia Natural Gas Pipeline (TANAP) and the Trans-Adriatic Pipeline (TAP)	These pipelines linked Azerbaijan's gas fields to Europe, providing an alternative gas supply route via Greece and Italy to reduce dependency on Russian gas. The current capacity of the Southern Gas Corridor towards the EU is 11

	bcm/y.
Phase 1 of BRUA corridor between Bulgaria, Romania and Hungary	This project developed transmission capacity in Romania from Podișor to Recas, enhancing regional connectivity with new pipelines and compressor stations at Podișor, Bibești, and Jupa. The current capacity from Romania to Hungary is 2,5 bcm/y.
The Baltic Pipe	This pipeline connected Norway's gas supplies to Denmark and Poland, strengthening European energy security through diversifying gas sources in Central-Eastern Europe. The capacity of the pipeline is 10 bcm/y.
The North – South Gas Corridor in western Poland	This corridor enhanced gas transmission from the Baltic Sea towards Slovakia and South-East Europe, improving supply reliability and flexibility within Poland and neighbouring countries.
The North-South Gas Corridor in eastern Poland	The majority of pipelines within this corridor has been realised. As a result, the corridor connected the LNG terminal in Swinoujscie and the Baltic Pipe through central and southern Poland with the infrastructure in Central-Eastern Europe.
The Poland-Lithuania gas interconnector	This project linked the gas networks of Poland and Lithuania, facilitating bi-directional gas flows, enhancing energy security in the Baltic region and enabling imports from the Klaipeda terminal towards Central-Eastern Europe. The capacity from Poland to Lithuania is 2,3 bcm/y and 1,8 bcm/y from Lithuania to Poland.
Interconnection Estonia — Finland (Balticconnector)	This subsea pipeline connected the natural gas grids of Estonia and Finland, providing Finland's supply diversification and access to the Incukalns underground gas storage facility in Latvia. Capacity from Estonia to Finland is 2,2 bcm/y and from Finland to Estonia is 2,5 bcm/y.
Enhancement of Estonia — Latvia interconnection	The project allowed bi-directional gas flow between Estonian and Latvian gas transmission systems and enabled bi-directional gas transport between Finnish and Baltic gas systems, together with the completion of Balticconnector offshore pipeline. The current bi-directional capacity of the interconnection is 3,6 bcm/y.
The Enhancement of Latvia-Lithuania interconnection	This project improved the gas interconnectivity between Latvia and Lithuania, facilitating better integration and energy resilience in the Baltic states. Current capacity from Lithuania to Latvia is 2,8 bcm/y and from Latvia to Lithuania 2,6 bcm/y.
Internal Croatia's evacuation pipelines from the Krk terminal towards Hungary	Beyond the completion of the Krk terminal in Croatia, these pipelines enabled transportation of regasified LNG from the terminal in Croatia towards Hungary, expanding regional gas

	supply routes. The current capacity from Croatia to Hungary is 1,6 bcm/y and from Hungary to Croatia 2,4 bcm/y.
The Poland-Slovakia gas interconnector	This pipeline connected Polish and Slovak gas networks, providing alternative supply routes and bolstering energy security in Slovakia and entire Central Europe. Current capacity from Poland to Slovakia is 4,5 bcm/y and from Slovakia to Poland 5,5 bcm/y.
Gas interconnector Greece-Bulgaria (IGB)	This pipeline linked Greek and Bulgarian gas grids, enabling access of Central-Eastern and South-Eastern Europe to diverse sources such as Greek LNG terminals and the Southern Gas Corridor. Current capacity of IGB is 3,3 bcm/y from Greece to Bulgaria.
Rehabilitation, modernisation and expansion of the Bulgarian transmission system	This project upgraded and expanded Bulgaria's gas transmission system, enhancing capacity and enabling large-scale transportation of natural gas from Greece and Southern Gas Corridor towards Central-Eastern and South-Eastern Europe.
Interconnector Bulgaria-Serbia	This pipeline connected gas networks of Bulgaria and Serbia, enabling Serbia to diversify away from Russia and enhancing security of supply in the Western Balkans region. The capacity from Bulgaria to Serbia is 1,6 bcm/y.
The Trans-Balkan reverse flow project	This non-PCI initiative carried out under the CESEC High-Level Group allowed reverse gas flows from Greece to Bulgaria, Romania, Moldova and Ukraine through the Trans-Balkan pipeline, enhancing connectivity and supply diversification for Central-Eastern and South-Eastern Europe.[39]

The gas infrastructure in the EU is sufficiently developed, well-interconnected and flexible, to enable Member States[40] to access LNG and pipeline imports from non-Russian sources. Nonetheless, additional infrastructure projects are currently under completion to remove remaining bottlenecks, enhance the diversification capability and further strengthen the security of supply in Central and South-East Europe.

In the preparatory phase before adopting the REPowerEU Plan in 2022, the Commission analysed how to tackle the existing dependency on Russian gas supply and address the remaining infrastructure bottlenecks. The Commission focused on identifying projects that would address the infrastructure needs, provide benefits to multiple Member States and that could be accomplished within the REPowerEU timeline.

[39] Non-PCI priority project completed in the framework of the CESEC High-Level Group
[40] except Cyprus and Malta.

Upon the Commission's request, ENTSOG analysed, considering different demand scenarios and assuming various levels of infrastructure development,[41] the status of the EU gas network, and assessed whether infrastructure bottlenecks exist and the extent to which such bottlenecks would pose a risk for the EU security of supply in case Russian gas flows to the EU were to stop.

This assessment was subsequently discussed with Member States in the High-level Groups[42] and led to the identification of a limited number of gas infrastructure projects, mainly in Central and South-Eastern Europe, which would help Europe meet the REPowerEU objective of full independence from the Russian gas. These projects are included in Annex III to the REPowerEU Plan. Some of the REPowerEU projects have already been completed and others are at an advanced stage of development with a completion dates by 2026.

To mobilise financing for the objectives of REPowerEU, Member States have been allowed to add REPowerEU chapters to their Recovery and Resilience Plans, including additional reforms and investments needed. The Commission decided to financially support the projects listed in Table 3 below through the Recovery and Resilience Facility (RRF). In addition, the Commission supported three underground gas storage facilities in South-East Europe under the Connecting Europe Facility to enhance the storage capacity and flexibility, one in Bulgaria (Chiren) and two in Romania (Bilciuresti and Depomures).

Table 3: REPowerEU projects financially supported by the EU

Project	**Technical details**
Expansion of the **Krk FSRU terminal in Croatia**	Current regasification capacity of the Krk terminal is 3,5 bcm/y. After the completion of the supported project, the capacity will increase to **6,1 bcm/y**. The commissioning of the project is **planned in 2026**.
Transmission infrastructure reinforcements in Croatia to substantially increase **cross-border capacities of Croatia with Slovenia and Hungary**, widening import options for Central-Eastern and South-Eastern Member States.	Current technical capacity from Croatia to Slovenia is 0,2 bcm/y. The supported project will increase it to 1,5 bcm/y. Existing interconnection between Croatia and Hungary has 1,6 bcm/y. The supported project will lead to **capacity increase to up to 3,5 bcm/y by 2026**.

[41] REPowerEU Plan, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52022DC0230

[42] Four High-Level Groups facilitate close cooperation on energy infrastructure development between EU and partner countries in priority regions, https://energy.ec.europa.eu/topics/infrastructure/high-level-groups_en

The **Adriatica Line and Poggio Renatico compressor station** to remove existing bottleneck within the Italian gas network	The supported projects will increase transport capacity along the south-north route from the entry points located in southern Italy from 126 million to around **131 million Sm3/g**, and to increase the transport capacity from the points interconnected with the LNG terminals in the North Adriatic (Ravenna) from **31 to 40 million Sm3/g**, with an increase of around 9 million Sm3/g. Commissioning of the project is **expected by 2026**.
Increase in the **capacity between Italy and Austria**, facilitating imports from new FSRU terminals in Italy, Azerbaijan, Northern Africa and regional cross-border flows across entire Central-Eastern Europe	Current capacity from Italy to Austria is 8,2 bcm/y. Once the supported projects are **completed by 2026**, the capacity will reach up to **14,6 bcm/y**.
The **onshore section of the FSRU terminal project in Gdansk**, enhancing security of supply of the Baltic region and further facilitating North-South gas flows towards Central-Eastern and South-Eastern EU Member States.	The supported investment within the FSRU terminal in Gdansk entails constructing the 250-km onshore pipeline connecting the terminal with the Polish transmission network. The pipeline project commissioning is planned **in 2026**. The FSRU Gdansk terminal will have **6,1 bcm/y** of regasification capacity.

The completion of these projects will address the infrastructure bottlenecks in Central-Eastern and South-Eastern Europe identified by ENTSOG in the REPowerEU Plan and, as a result, Member States in the region will be able to fully utilise eleven transmission corridors to carry gas from the entry points in the EU grid system (either LNG terminals or pipeline) to their domestic markets.[43] These are the eleven corridors[44]:

1. Baltic Pipe between Norway-Denmark-Poland-Slovakia via Faxe and Vyrava interconnection points (IPs)[45]
2. Lithuania-Poland-Slovakia via Santaka and Vyrava interconnection points[46]
3. Italy-Austria-Slovakia via Tarvisio/Arnoldstein and Baumgarten interconnection points[47]

[43] ENTSOG system capacity map and transparency platform, https://www.entsog.eu/maps and https://transparency.entsog.eu/#/map

[44] All figures are based on official data available in the ENTSOG datasets provided in GWh/d. All values expressed in bcm/y are indicative and are presented as approximate figures due to unit conversions and rounding, to ease interpretation

[45] The Baltic Pipe has a capacity of 321,6 GWh/d (10 bcm/y). The Vyrava interconnection Point (IP) has a capacity of 173,9 GWh/d (5,4 bcm/y) from Slovakia to Poland and 144,5 GWh/d (4,5 bcm/y) from Poland to Slovakia.

[46] The Santaka IP has a capacity of 73,3 GWh/d (2,3 bcm/y) from Poland to Lithuania and 58,1 GWh/d (1,8 bcm/y) from Lithuania to Poland. The Vyrava interconnection Point (IP) has a capacity of 173,9 GWh/d (5,5 bcm/y) from Slovakia to Poland and 144,5 GWh/d (4,5 bcm/y) from Poland to Slovakia.

[47] The Tarvisio/Arnoldstein IP has a capacity of 1.192,4 GWh/d (37,4 bcm/y) from Austria to Italy and 263,8 GWh/d (8,2 bcm/y) from Italy to Austria. The Baumgarten IP has a capacity of 246,5 GWh/d (7,7 bcm/y) from Austria to Slovakia and 1.570,4 GWh/d (49,2 bcm/y) from Slovakia to Austria. The capacity of the

4. Italy-Austria-Hungary via Tarvisio/Arnoldstein and Mosonmagyaróvár interconnection points[48]
5. Croatia-Hungary via Dravaszerdahely interconnection point[49]
6. Greece-Bulgaria-Romania-Hungary via Kulata/Sidirokastron, Stara Zagora (IGB), Negru Voda/Kardam, Csanadpalota interconnection points[50]
7. Germany-Czechia-Slovakia via VIP Brandov and Lanžhot interconnection points[51]
8. Germany-Austria-Slovakia via VIP Oberkappel and Baumgarten interconnection points[52]
9. Germany-Austria-Hungary via VIP Oberkappel and Mosonmagyaróvár interconnection points[53]
10. Germany-Poland-Slovakia via Mallnow, GCP GAZ-SYSTEM/ONTRAS and Vyrava interconnection points[54]
11. Trans-Balkan pipeline between Greece, Bulgaria, Romania, Moldova, Ukraine, Hungary and Slovakia via Kulata/Sidirokastron/, Stara Zagora (IGB), Negru Voda/Kardam, Isaccea/Orlivka, Kaushany, Grebenyky and Uzhgorod/Velke Kapusany, Budince, VIP BEREG interconnection points[55]

Tarvisio/Arnoldstein IP will be increased to 14,6 bcm/y from Italy to Austria after completion of the REPowerEU projects in Italy in 2026.

[48] The Tarvisio/Arnoldstein IP has a capacity of 1.192,4 GWh/d (37,4 bcm/y) from Austria to Italy and 263,8 GWh/d (8,2 bcm/y) from Italy to Austria. The Mosonmagyaróvár IP has the capacity of 153,1 GWh/d (4,8 bcm/y) from Austria to Hungary. The capacity of the Tarvisio/Arnoldstein IP will be increased to 14,6 bcm/y from Italy to Austria after completion of the REPowerEU projects in Italy in 2026.

[49] The Dravaszerdahely IP has a capacity of 76,3 GWh/d (2,4 bcm/y) from Hungary to Croatia and 50,5 GWh/d (1,6 bcm/y) from Croatia to Hungary. The capacity of this IP will be increased to 3,5 bcm/y from Croatia to Hungary after the completion of the REPowerEU projects in Croatia by 2026.

[50] The Kulata/Sidirokastron IP has a capacity of 120,2 GWh/d (3,8 bcm/y) from Bulgaria to Greece and 66,6 GWh/d (2 bcm/y) from Greece to Bulgaria. The Stara Zagora IP (IGB) has a capacity of 107,0 GWh/d (3,3 bcm/y) from Greece to Bulgaria. The Negru Voda/Kardam IP has a capacity of 157,7 GWh/d (4,9 bcm/y) from Bulgaria to Romania and 189,5 GWh/d (5,9 bcm/y) from Romania to Bulgaria. The Csanadpalota IP has a capacity of 78,8 GWh/d (2,4 bcm/y) from Romania to Hungary and 78,0 GWh/d (2,4 bcm/y) from Hungary to Romania. The Kulata/Sidirokastron IP is expected to be increased to 3,2 bcm/y by the end of 2025. The Negru Voda/Kardam IP is expected to be increased up to 9,2 bcm/y by mid-2026.

[51] The VIP Brandov has a capacity of 268,8 GWh/d (8,4 bcm/y) from Germany to Czechia and 198,3 GWh/d (6,2 bcm/y) from Czechia to Germany. The Lanžhot IP has a capacity of 1399,0 GWh/d (43,9 bcm/y) from Czechia to Slovakia and 384,8 GWh/d (12 bcm/y) from Slovakia to Czechia. The VIP Brandov will be increased up to 18,8 bcm/y from Germany to Czechia by the end of 2026.

[52] The VIP Oberkappel has a capacity of 214,5 GWh/d (6,7 bcm/y) from Germany to Austria and 113,3 GWh/d (3,5 bcm/y) from Austria to Germany. The Baumgarten IP has a capacity of 246,5 GWh/d (7,7 bcm/y) from Austria to Slovakia and 1.570,4 GWh/d (49,2 bcm/y) from Slovakia to Austria. The VIP Oberkeppel will be increased up to 9,2 bcm/y in the first half of 2027.

[53] The VIP Oberkappel has a capacity of 214,5 GWh/d (6,7 bcm/y) from Germany to Austria and 113,3 GWh/d (3,5 bcm/y) from Austria to Germany. The Mosonmagyaróvár IP has the capacity of 153,1 GWh/d (4,8 bcm/y) from Austria to Hungary. The VIP Oberkappel will be increased up to 9,2 bcm/y in the first half of 2027.

[54] Mallnow IP has a capacity of 259,2 GWh/d (8,1 bcm/y) from Germany to Poland. GCP GAZ-SYSTEM/ONTRAS IP has a capacity of 48,7 GWh/d (1,5 bcm/y) from Germany to Poland. The Vyrava interconnection Point has a capacity of 173,9 GWh/d (5,4 bcm/y) from Slovakia to Poland and 144,5 GWh/d (4,5 bcm/y) from Poland to Slovakia.

[55] The Kulata/Sidirokastron IP has a capacity of 120,2 GWh/d (3,8 bcm/y) from Bulgaria to Greece and 66,6 GWh/d (2 bcm/y) from Greece to Bulgaria. The Stara Zagora IP (IGB) has a capacity of 107,0 GWh/d (3,3 bcm/y) from Greece to Bulgaria. The Negru Voda/Kardam IP has a capacity of 157,7 GWh/d (4,9 bcm/y) from Bulgaria to Romania and 189,5 GWh/d (5,9 bcm/y) from Romania to Bulgaria. The Isaccea/Orlivka IP has a capacity of 122,0 GWh/d (3,8 bcm/y) from Romania to Ukraine and 201,9 GWh/d (6,3 bcm/y from Ukraine to

Figure 18: Map of Central-Eastern and South-Eastern European gas infrastructure [56]

Source: Gas Infrastructure Europe

Romania. The Kaushany IP has a capacity of 348.9 GWh/d (10,9 bcm/y) from Moldova to Ukraine and 133,7 GWh/d (4,1 bcm/y) from Ukraine to Moldova. The Grebenyky IP has a capacity of 81,4 GWh/d (2,5 bcm/y) from Moldova to Ukraine and 348,9 GWh/d (10,9 bcm/y) from Ukraine to Moldova. The Uzhgorod/Velke Kapusany IP has a capacity of 1.861,6 GWh/d (58,4 bcm/y). The Budince IP has a capacity of 202,2 GWh/d (6,3 bcm/y). The VIP Bereg has a capacity of 517,5 GWh/d (16,2 bcm/y). The Kulata/Sidirokastron IP is expected to be increased to 3,2 bcm/y by the end of 2025. The Grebenyky IP is expected to increase up to 4,1 bcm/y. The Negru Voda/Kardam IP is expected to be increased up to 9,2 bcm/y by mid-2026 and lead to simultaneous increase of Isaccea/Orlivka, Kaushany and Grebeny IPs up to 7,3 bcm/y in the direction of Ukraine/Central-East Europe.

[56] Europe-wide System Capacity Maps, https://www.entsog.eu/maps and https://www.gie.eu/publications/maps/

The possibility to access and efficiently use the EU gas network, hence allowing the use of different supply corridors, is ensured by a robust regulatory framework. It has delivered a mature and well-integrated EU gas system, with low levels of congestion at cross-border points[57]. The rules governing the access to cross-border capacity provide for the predictable and non-discriminatory allocation of available capacity at interconnection points to all network users[58]. Dedicated remedies are also provided in EU legislation to tackle and prevent the occurrence of contractual congestion, or the hoarding of infrastructure capacity in transmission or other critical system points, such as LNG terminals or underground storage facilities.[59] Together, these rules guarantee an agile and secure access to cross-border infrastructure capacity, an essential prerequisite for ensuring a successful diversification from Russian gas supplies.

Tariffs applicable to the use of gas transmission infrastructure also play an important role in the selection and economic viability of new supply routes. EU rules cater for transparent and cost-reflective transmission tariffs by establishing detailed requirements for the structure of those tariffs.[60] While transparency and fair transmission pricing encourages competition between gas supply routes, it also ensures informed utilisation of the infrastructure by providing network users with specific and predictable cost-signals. The applicable rules also provide for significant flexibility in establishing tariffs or the underling methodologies.[61] It further allows for significant tariff discounts for LNG and storage facilities, acknowledging the general contribution to system flexibility and security of supply of such infrastructure[62].

Box 1: Impactful regional cooperation: the CESEC High-Level Group

The Commission is steering joint regional efforts on the infrastructure and market integration of Central-Eastern and South-Eastern European countries through the CESEC High-Level Group, a unique regional cooperation that involves 9 EU Member States and 8 Energy Community Contracting Parties.

The overarching objectives of the CESEC High-Level Group concerning natural gas are twofold. First, CESEC monitors and accelerates the implementation of the REPowerEU gas infrastructure priority projects indicated in Table 2. Second, as agreed by the CESEC Ministers in 2024, the High-Level Group aims at optimising the use of existing infrastructure, which in some Member States, has been significantly underutilised. To serve this objective, CESEC launched two priority workstreams: one on gas quality harmonisation and the other

[57] 2024 Market Monitoring Report: Infrastructure enhancement (e.g., new LNG terminals) and lower gas demand in Q3 were reflected in easing of congestion at interconnectors between West and Central Europe.

[58] As established in Commission Regulation (EU) 2017/459 of 16 March 2017 establishing a network code on capacity allocation mechanisms in gas transmission systems and repealing Regulation (EU) No 984/2013 C/2017/1660, OJ L 72, 17.3.2017, p. 1–28.

[59] Annex I point 2. of Regulation (EU) 2024/1789, establishing principles of capacity-allocation mechanisms and congestion- management procedures concerning transmission system operators and their application in the event of contractual congestion (so-called Congestion management procedure guidelines).

[60] See Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas, C/2017/1657, OJ L 72, 17.3.2017.

[61] By allowing for example national regulatory authorities to correct the reference price methodology of the applicable transmission tariff either via benchmarking, equalisation or rescaling adjustments, as envisaged by article 6 of Regulation (EU) 2017/460.

[62] See Article 17 (3) of Regulation (EU) 2024/1789.

on addressing regulatory and market barriers along the Trans-Balkan Pipeline (TBP).

TBP is composed of up to three pipelines, of which one (T1) is capable to transport gas from Southern to Central-Eastern Member States and can therefore be a viable route to deliver LNG and Azeri gas landed in Greece towards Bulgaria, Romania, Moldova, Ukraine and Central-Eastern Europe. The pipeline can carry significant volume of gas and can therefore play an important role in the region's diversification effort, even more as from 2027, when the Neptun Deep gas field in Romania is expected to come onstream (8 bcm/y capacity in the first ten years of operation) providing another important source of diversification for the Member States in the region.

Figure 19: the Trans-Balkan pipeline

Source: Gas Infrastructure Europe

Despite its potential, regulatory and market practices currently pose barriers to the utilisation and commercial attractiveness of the TBP. Current issues include i) lack of firm capacity in a number of interconnection points along the route, e.g. Isaccea/Orlovka (RO-UA) or Grebenyky (MD-UA) IPs, ii) non-aligned gas quality requirements in reverse-flow in existing interconnection agreements between TSOs, and iii) regulatory barriers to entry and operate in gas markets along the corridor.

The CESEC High-Level Group is working to address these barriers, and significant progress has already been achieved, for example in relation to the gas quality harmonisation where several TSOs in the region have jointly signed a Memorandum of Understanding for achieving a common solution by October 2025. In parallel, CESEC is actively engaging with all stakeholders in the region with the aim to support a common resolution of the identified

regulatory barriers.

The successful completion of the ongoing investments in Greece, Bulgaria and Ukraine by 2026, along with the removal of the existing regulatory barriers, will enable the Trans-Balkan pipeline to transport up to 295 GWh/d (9,2 bcm/y) from Bulgaria to Romania and 232 GWh/d (7,3 bcm/y) of gas from Romania to Ukraine towards Central-Eastern Member States. This will benefit the gas markets in the region and will support the EU diversification efforts.

The existing infrastructure also ensures the security of Ukraine's and Moldova's supply in case of need. Until recently, Ukraine was able to meet nearly its entire gas demand through domestic production, totalling 18,7 bcm/y. However, following artillery and drone attacks by Russia in Winter 2024/2025, certain production facilities in Ukraine were destroyed, increasing the need for imports from the EU. Imports from European markets via interconnections with Hungary, Poland and Slovakia proved it sufficient to compensate for the lower domestic production.

Moldova has not imported Russian gas since the 2022 energy crisis. Its interconnection capacity with neighbouring countries, especially Romania and Ukraine has allowed Moldova to cover all its's needs from EU gas markets[63]. This diversification was enabled by the completion of the Ungheni-Chişinău pipeline in 2020, establishing a direct connection with Romania. The work to improve the use of Trans-Balkan pipeline (discussed above) will provide additional supply security to Moldova and Ukraine, including strengthening the transit role of these countries after the full unblocking of the Trans-Balkan pipeline.

4.3. Assessment of the legislative proposals

4.3.1. The gas import ban

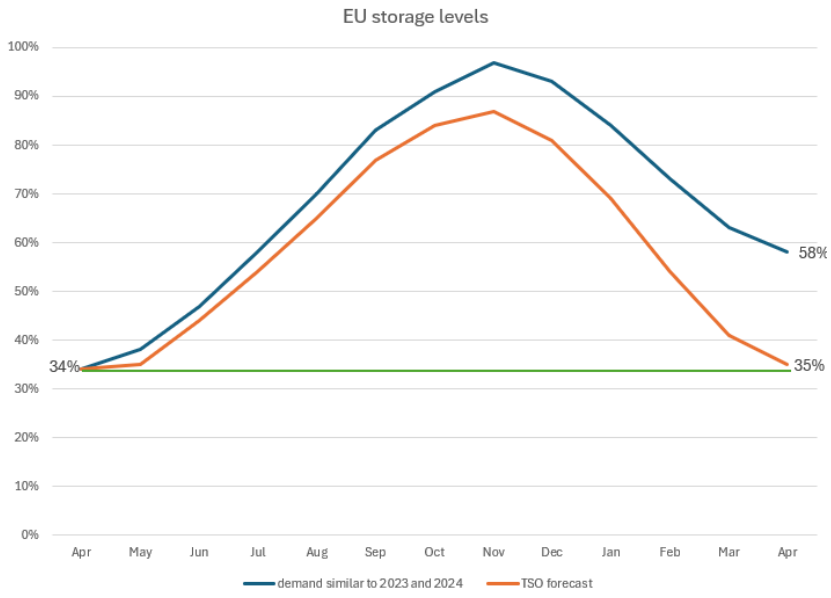
No risk for security of supply in the EU arises if the phase out of Russian gas is planned, well-prepared in advance and gradually achieved as envisaged by the proposed measures Thanks to the abundant import capacity, and the well-connected and flexible gas infrastructure (see Section 4.2), the EU is already able to meet its gas demand as well as its storage filling targets during the injection season, even without Russian gas supply. This is confirmed by "ENTSOG Summer Supply Outlook 2025"[64]. The ENTSOG report explores several supply and demand scenarios and a number of storage level sensitivities, and it concludes that "*in the case of a full disruption of Russian pipeline supplies, storage facilities are sufficient to meet demand and achieve an average inventory target level of 35% across the EU*", which is considered by ENTSOG a safe level at the end of the winter. This result is valid both in a scenario where the EU demand is comparable to current levels, and in a scenario that assumes a 5% higher demand as forecast by the EU gas transmission system operators.

[63] In January 2025 Gazprom cut off supplies to Moldova's break-away Transnistrian region, where electricity was produced with Russian gas. In response to the ensuing energy crisis, the Union intervened with emergency support of EUR 30m of gas supplies to both banks of the Nistru river, followed by a EUR 250 million comprehensive package for energy independence and resilience of Moldova in February 2025.

[64] SO0067-25_Report_Summer Supply Outlook 2025.pdf

Furthermore, in the 2024 edition of the *Union-wide security of supply simulation*[65] report produced by ENTSOG in consultation with the Gas Coordination Group, the modelling of the EU gas system shows that the European gas system is resilient even in extreme scenarios. In the reference scenario without Russian gas imports and with exceptionally high demand and low storage levels at the beginning of the winter, the European gas system is robust enough to satisfy the demand and keep an adequate storage level at the end of the winter. The scenario assumes that the post-crisis restructuration and efficiency gains in gas demand remains stable, which is in line with observations of the last two years. Only in case of a combination of severe peak demand conditions and infrastructure disruption, the system would be locally tested to its limits. This demonstrates the high level of resilience of the European gas infrastructure. The report concludes that "*the simulation results show that short-term high demand events (typically expected to occur late in winter) can be managed through efficient withdrawals from UGS and LNG tanks […].*" In some very limited cases[66] ENTSOG noted that "*infrastructure limitations can prevent a few Member States from fully efficient cooperation*". However, in its simulations ENTSOG took into account the existing European gas infrastructure and 'only' projects to be commissioned before January 2026. It did not consider additional projects and improvements that will be finalised later such as, for instance, the ongoing work to maximise the utilisation of the Trans-Balkan pipeline (see Box 1 above), REPowerEU projects in Croatia, Italy, Poland as well as market-driven infrastructure investments in Greece, Bulgaria, Austria and Germany. With the completion of these projects, the EU gas network will face even less constraints than simulated by ENTSOG, this will further improve Member States' access to alternative routes to import gas, especially in the Central-Eastern and South-Eastern European region, thereby further enhancing the EU security of supply.

Figure 20: Average EU storage level in case of Russian supply disruption for different demand scenarios



[65] Security of Supply Simulation | ENTSOG

[66] These very few cases might only emerge under the hypothesis of one day (peak day) of exceptionally high demand, "*occurring with a statistical probability of once in 20 years*".

Source: ENTSOG Summer Supply Outlook 2025 and European Commission

The measures envisaged in the proposal are also **unlikely to cause adverse effects on gas prices** for the reasons set out below.

First, the available gas supply is set to grow significantly in the coming years.

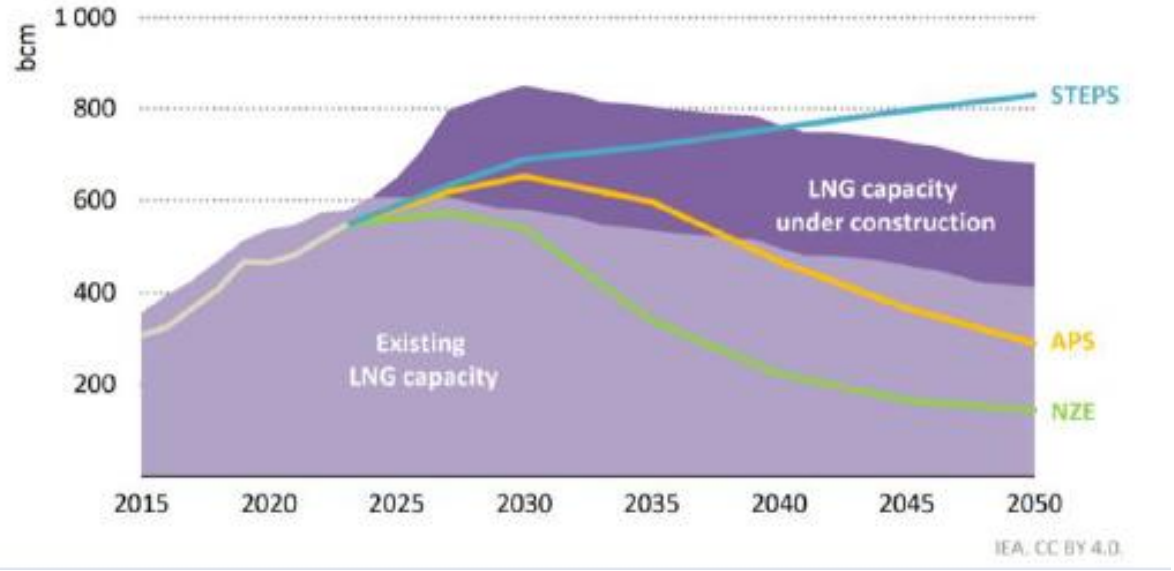
Compared to pre-crisis, LNG plays a more important role in the EU gas mix (40% of the EU imports) and, as a result, the EU gas prices are more exposed to the dynamics of LNG markets. The LNG market is global, and the additional demand coming from the EU since the start of the crisis has tightened the LNG global market causing higher prices and larger volatility than pre-crisis. However, the market situation is on the verge of a structural change.

As shown above, a large wave of new liquefaction capacity is set to come online mainly in the US and Qatar. By 2027 the LNG additional export available globally is expected to be of 160-170 bcm per year, almost five times more than the EU imports of Russian gas. Additional capacities will also come online in Asia, Australia and Africa, and in neighbouring Algeria and Egypt, also in the framework of the upcoming New Pact for the Mediterranean. In its '*World Energy Outlook 2024'*, the International Energy Agency considered alternative projections for the LNG demand evolution and in all scenarios the new liquefaction capacity is expected to largely outweigh any potential increase in demand. This will lead to a surplus of LNG of at least 130 bcm by 2030 (see Figure 21) which eventually is set to '*depress international gas prices*'. The abundance of LNG will allow the EU to replace Russian gas without causing any tension in the market, and thus with no material price consequences.

This view is largely supported by market analysts. For example, the Institute for Energy Economics and Financial Analysis in its Global LNG Outlook 2024-2028 noted that "*Lackluster demand growth combined with a massive wave of new export capacity is poised to send global liquefied natural gas (LNG) markets into oversupply within two years. These two trends are developing even faster than anticipated*".[67] Similarly, S&P Global Commodity Insights argues that "*LNG supply entering the global market from 2026 is expected to exceed non-European demand growth and lower prices"*[68] and it predicts prices to fall rapidly as of 2026 with TTF prices expected to be *"average €15.0/MWh ($5.0/MMBtu) in 2030 (in real 2024 terms)".* Along a similar line, Bloomberg indicated that: "*the global LNG market is on track to see more supply than demand from 2027 onwards. It is poised to become increasingly oversupplied by the end of this decade*."[69]

[67] Institute for Energy Economics and Financial Analysis: Global LNG Outlook 2024-2028 (April 2024).
[68] European Gas Long-Term Forecast Quarterly Update, March 2025
[69] Global LNG Market Outlook 2030: Focus on Supply Risks | Insights | Bloomberg Professional Services

Figure 210: projected liquefaction capacity vs projected demand worldwide



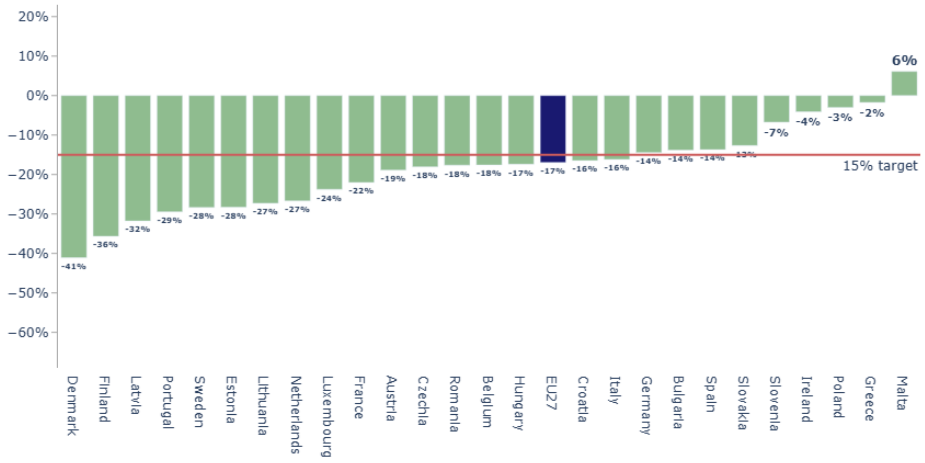
Source: IEA – World Energy Outlook 2024
Note: STEPS, APS and NZE reflect demand projections under different scenarios

Member States are well equipped to receive more LNG supplies from global partners. The EU has a total regasification capacity of about 250 bcm (see above), of which more than half is not yet utilised. The spare capacity is three times more than the existing gas imports from Russia.

In addition to LNG, more supply from other sources will become available in the coming years in Central and South-East Europe, a region traditionally dependent on Russian pipeline supplies. In particular, the Neptun Deep offshore gas field in Romania (from 2027) and the additional capacity to import from Azerbaijan via the Trans Adriatic Pipeline will make available almost 10 bcm of additional gas.

Second, the EU demand for gas is on a steady downward path. Since 2021, the EU gas consumption has dropped by 80 bcm/y and it is now down by 17% on average, compared to pre-crisis.

Figure 22: Natural gas demand reduction, Aug 2022 - Feb 2025



Source: DG ENER based on Eurostat (nrg_cb_gasm)

The full implementation of the energy transition and the recent Action Plan for Affordable Energy are expected to further boost the decarbonisation of the EU energy system, leading to replace up to 100 bcm of gas by 2030, or a further reduction in gas demand by 40-50 bcm by 2027.[70] This will contribute to alleviate the market tightness. It also shows how in reality only a small part of the Russian imports would need to be replaced with alterative suppliers as the projected reduction in consumption by 2027 is larger than the current import from Russia.

Third, as demonstrated in the previous section, the gas infrastructure in the EU is sufficiently developed and flexible to accommodate for alternative routes to bring gas to the EU, including for the Central and South-Eastern region.

Finally, in 2024 about 60% (approx. 20 bcm) of Russian supplies to the EU were LNG. LNG is a global market where prices are determined by the interplay between demand and supply globally and prices can only change when the balance between demand and supply does. The phase-out of Russian LNG would likely lead to trades shifting around with Russia redirecting its export to other regions (e.g. Asia) and Europe compensating with more imports from the trusted partners. However, the LNG global supply would remain largely unaltered and so would the prices.

In view of the expected timeline for the deployment of new liquefaction capacity and domestic production, the Commission proposes a stepwise approach to phase out Russian gas, starting with new contracts, followed by short term supplies. The reason is two-fold:

a) Short term (with duration of less than 1 year) purchases account for a minority of the Russian imports (approximately one third, or 10-15 bcm/y) and large part of it is LNG whose phase-out is unlikely to cause any material change in the global balance; this will leave the more substantial part of the phase-out to a later stage (purchases under

[70] The estimates are based on the Commission's long-term projections, adjusted for the recent developments in gas demand. The projections reflect the information and expectations currently available and as such they are subject to uncertainties related to unforeseeable developments of, for example, energy prices, geopolitical situation and technological advancements in clean technologies.

long-term contracts) when the benefits of the larger LNG supply globally[71] and the lower demand in the EU will have been more extensively materialised.

b) The delineation between spot and short-term contracts and long-term contracts envisaged in the proposal is intended to reflect the different volumes at stake and the resulting differences when it comes to finding alternative suppliers.

As the global balance improves (+150-160 bcm/y of new liquefaction capacity by 2027), more domestic production becomes available in the EU (Neptun Deep field, +8 bcm from 2027), and gas EU consumption continues declining (- 40-50 bcm by 2027), the EU can safely complete the phase out of the remaining Russian gas currently under long-term contracts (20-25 bcm/y), with limited risks for prices. A longer lead-time would also enable European buyers to terminate existing contracts that include an obligation to deliver gas to the EU and, if needed, to sign new contracts with alternative suppliers.[72]

[71] The replacement of Russian pipeline supply may increase the EU demand for LNG but this is unlikely to cause any material change in the LNG global balance: (i) most of Russian pipeline imports come under long-term contracts for which the proposal envisages a later deadline (2027) when 150-160 bcm of new liquefaction capacity will have already come onstream, (ii) Russian pipeline supply to the EU is about 15 bcm/y and this represents a very small share (approx. 2%) of the total liquefaction capacity available by 2027.

[72] According to ACER's price data collected for the purpose of calculating the LNG price assessment and benchmarks (https://www.acer.europa.eu/gas/lng-price-assessment), Russian LNG prices, while competitive, are not necessarily the cheapest ones. For example, Russian long-term contracts which are typically more closely indexed to crude oil, remained competitive throughout 2023 and 2024 but other contracts from other origins (and using other indexations) proved to be even more cost-effective.

Box 2: The end of the Russian flow through Ukraine

In December 2019, Gazprom and Naftogaz Ukrainy signed a long-term agreement from January 2020 to December 2024 to enable the transit on the Ukraine's pipeline system of Russian gas directed to the EU markets. Following Russia's invasion of Ukraine, the gas flow via this route has considerably decreased. However, in 2024 there was still about 15 bcm of Russian gas transiting through Ukraine.

To prepare for the end of transit agreement, the European Commission worked closely with Member States to ensure a smooth transition, by helping anticipate their diversification needs, and prevent any impact on security of supply and markets. Through a dedicated group, the Commission and Member States conducted a joint assessment of the situation and diversification possibilities. The group met regularly to evaluate the availability of import and transit capacities, volumes of non-Russian origin, and the potential impact on prices and security of supply. The results were presented to the Energy Council, where Ministers provided additional guidance and requests, further contributing to a coordinated preparation at the EU and regional levels.

The joint assessment revealed that the European gas system had sufficient infrastructure capacity to cope with the end of the gas volume coming through Ukraine. Thanks to recent developments in LNG import capacities and interconnection capacities, the EU gas system was already well-integrated, resilient, and flexible, to ensure that all Member States had access to LNG and pipeline imports from alternative routes. The Commission also organized a comprehensive crisis simulation exercise to test the resilience of the EU's security of supply. The exercise confirmed that the EU was well-prepared for the end of the transit agreement via Ukraine. Communication with market participants throughout the process was another important element of the preparation work to encourage diversification and limit the risk of last-minute reactions that could trigger large price increases.

On 1 January 2025, following the expiry of the transit agreement, Russian flows to the EU transiting via Ukraine stopped. This resulted in a reshuffling of the flow patterns in the Central-Eastern region of Europe but, as confirmed by Member States potentially affected in the meeting of the dedicated group that took place on 2 January 2025, no concerns for the security of gas supply to the Region arose as a result of the end of the transit.

The effects on prices were also limited. No significant and lasting price increase materialised after the halt of the flow through Ukraine. Gas prices increased from about 45 €/MWh to 50 €/MWh in the days across the end of 2024 and the beginning of 2025 but they very rapidly dropped, and by the end of the first week of January 2025 prices were back to the pre-Christmas level (45 €/MWh). Some commentators suggested that market operators may have already factored the increase in the prices during 2024 before the halt of the transit. Even if so, however, according to the few available estimates[73] developed in 2024, the expected price increase was limited to 5% or less, which – at the current prices (approx. 35 €/MWh) - would translate in a rise of 1-2 €/MWh.[74]

[73] see, for example, Modelling based gas market analysis 2023/24 - REKK

[74] REKK considers three demand scenarios: low 3000 TWh/y (~310 bcm), reference 3600 TWh/year (~370 bcm) and high 4100 TWh/year (~410 bcm). The EU demand in 2024 was about 330 bcm, so the low/reference scenarios are the one more closely reflecting the current consumption in the EU. REKK also models a variety of sensitivity analyses to account for potential changes in the market. It includes three different price environments,

The price increase observed in the second half of 2024 and through the 2024/2025 winter season was the result of a number of concomitant factors of which the anticipation of the end of Ukrainian transit played, if any, a limited role. These factors include the depletion of storage, the status of development of new liquefaction plants worldwide, some infrastructure outage and disruption, lower renewable generation, the increase in the demand in the EU and Asia, combined with a number of geopolitical events which contributed to create uncertainty and fear of disruption, such as for example, the US sanctions against Gazprombank, China's import tariffs on US LNG, etc. As the end of the withdrawal season approached and the tension linked to some factors mentioned above eased, gas prices gradually fell and returned to the levels of summer 2024.

Figure 23: TTF month-ahead prices, Jan 2024 – mid-May 2024

Source: S&P Commodity Insights

4.3.2. Prohibition to provide services in EU LNG terminals to Russia's customers

To effectively ensure the successful delivery of LNG imports from alternative sources, it is crucial that LNG terminals within the Union make corresponding import capacity available to these suppliers. As a significant portion of LNG capacity in certain Member States is controlled by Russian entities, there is a risk that Russia obstructs alternative imports, notably through not making unused capacities it had booked available to non-Russian importers after the ban enters into force (hoarding), as seen in the case of storages in 2012/2022, or other anti-competitive practices. To reinforce the ban on Russian imports, the proposal includes a measure to make accessible to alternative suppliers the corresponding import capacity within LNG terminals by prohibiting LNG terminal services to customers from Russia or customers controlled by Russian undertakings by [1 January 2028]. This measure will redirect terminal capacity to alternative suppliers, enhance energy market resilience, and address past issues of market distortion, price increases, and threats to security.

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namely 25, 35 and 45 €/MWh. Considering current prices at 35 €/MWh and a low to medium demand that the impact is estimated to be below 5%.

4.3.3. Transparency, monitoring, traceability and National Diversification Plans

The effectiveness of the proposed gas trade measures rest on three conditions:

- transparency: the implementation of the measures - as designed in the proposal - requires comprehensive and systematic information about the existing contracts for Russian gas, including specific contractual arrangements (i.e. date of conclusion, destination clause, duration, etc.) to establish when the contracts were established, annual contracted volumes and their duration;

- monitoring: the collection of information related to contracts is not only important for the initial differentiation of contracts but also to enable customs, national energy authorities and the Commission to assess the implementation of the measure and to continuously monitor that no Russian gas will return to the EU in the future;

- traceability: in order to make sure that gas of Russian origin cannot enter the EU, customs authorities need to sort imported gas according to its origin. Except for cases where gas can clearly be considered as of Russian origin, the proposal requires importers to present documentation to the customs authorities about the origin of the imported gas.

In order to ensure the effective phase-out of Russian gas, it is necessary to establish a transparency framework that provides the Member States' competent authorities and the European Commission with the relevant contractual information to precisely evaluate the level of exposure of the EU to Russian imports.

A set of key contractual information, from importers of gas of Russian origin, is necessary for the assessment, evaluation and monitoring of the EU’s exposure to Russian gas and the implications for the EU’s security of supply.

To ensure a comprehensive documentation, the gas supply contract information should include key details such as quantities to be supplied and taken, including flexibilities under take-or-pay or deliver-or-pay provisions. The information provided should also specify the conclusion date, contract duration, contracted gas quantities with upward or downward flexibility rights, and the identities of the contract partners, gas producer, and country of production. For LNG imports, the port of first loading should be reported, along with delivery points and possible flexibilities regarding these points. Additionally, delivery schedules or nominations, possible contractual flexibilities concerning annual quantities, and conditions for suspension or termination of deliveries, including force majeure provisions should be outlined. The governing law and chosen arbitration mechanism should also be specified, as well as key elements of other relevant commercial agreements. Price information is not necessary for the assessment by the Commission of the EU’s exposure to Russian gas imports. Furthermore, any modifications to the contract, except those related to gas price, should be documented. Overall, this comprehensive set of information will provide a clear understanding of the gas supply contract's terms and conditions, and contribute to the effective preparation of the phase out that ensures gas supply security.

This transparency framework will be the cornerstone of a monitoring of the Union's exposure to gas of Russian origin, essential in the overall assessment of the EU's security of supply situation. Based on the abovementioned information provided by importers, the competent authorities of the Member States and the European Commission, will be able to precisely monitor the amount of Russian gas entering the Union, identify the actors involved, the entry points and other key elements essential in the evaluation of the EU's security of supply.

Additionally, Member States will be required to develop comprehensive national diversification plans that detail concrete measures and timelines to phase out Russian gas supplies. Establishing these national diversification plans for gas is essential for achieving the objective of eliminating any dependence on Russian gas and will help provide businesses and investors with the predictability and reassurance they need to make strategic investment decisions to secure alternative gas supplies. The first national diversification plans should be submitted by the end of 2025, to allow for a well-planned and secure phase out.

The information in the national plans will complement the information provided by importers of Russian-origin gas. Together, this comprehensive set of data will inform the monitoring process, enabling the European Commission to evaluate the European Union's exposure to Russian-origin gas and assesses the effectiveness of Member States' strategies to phase out these imports. his will contribute to the strengthening of the EU security of supply and the preparation of markets to the phase out of Russian gas.

The Commission's legislative proposal has specific targets for Member States to lay out:

- the volume of Russian gas imports under existing contracts, including for contracts with take-or-pay clauses;[75]
- a timeline, including milestones supporting EU measures to achieve the objective of phasing out Russian gas;
- diversification options, alternative supply routes and supplies, and technical capabilities to replace Russian gas, including through cooperation in existing regional groups;
- any potential technical or regulatory barriers to replace Russian gas.

The Commission will support Member States in the preparation of the national diversification plans, through established working and coordination groups, such as the Gas Coordination Group, or a dedicated subgroup, as well as regional groups.

Once these national diversification plans are submitted, the Commission will assess the implementation of the Russian gas phase-out at national, regional, and EU levels, and report its findings to the Gas Coordination Group. An annual report will be published, providing a detailed overview of the progress achieved by Member States in implementing their diversification plans. If necessary, the report will be accompanied by Commission's recommendations outlining potential measures to ensure a secure and timely phase-out of

[75] A take-or-pay contract is a type of agreement commonly used in the energy industry, particularly in gas sales. This contract stipulates that the buyer must either take delivery of a specified amount of gas or pay a predetermined penalty if they do not take the delivery.

Russian gas. Relevant Member States will be required to update their diversification plans within [three] months, incorporating the Commission's recommendations.

4.3.4. Supporting diversification by demand aggregation

Since 2023, AggregateEU has supported European companies in diversifying their gas and LNG supplies away from Russia. Through 6 demand aggregation and matching rounds, AggregateEU saw almost 190 companies engaging to seek best opportunities for gas and LNG supplies through to 2030. By way of example, the second mid-term round of demand aggregation and matching under AggregateEU was completed on 26 March 2025 and gathered significant interest on both the demand and the supply side, with 29 bcm of demand, 31 bcm of supply offers and almost 20 bcm of matched supply-demand interests. It covered gas demand between 2025 and 2030 and allowed buyers to indicate a preferred terminal in the EU or deliveries free-on-board, providing buyers with additional flexibility.

In a fast-changing market environment, the context of the phase out of Russian gas, the experience gained with AggregateEU serves as a basis to offer targeted support to EU LNG buyers to find alternative suppliers. Looking forward, options going beyond demand aggregation should also be explored in view of harnessing EU purchasing power to support its diversification efforts.

Beyond LNG, in the mid- to long-term, the Commission’s new suite of mechanisms will help companies find counterparts to contract for clean energy carriers, such as hydrogen and its derivatives, and biomethane.

4.4. Legal considerations on the impact on existing long-term contracts

Long-term supply contracts have an important role in the international gas industry, for both pipeline gas and LNG. Notwithstanding the emergence and increasing role of shorter-term alternatives, substantial volumes of pipeline gas and LNG continue to be traded under long-term contracts which has remained a crucial contractual instrument for international gas and LNG sales. By offering predictability and stability, they sustain project financing of energy projects and the construction of pipeline gas and LNG infrastructure that require large upfront investments. Despite similarities, the wording of each long-term contract is specific and tailor-made by the buyer and the seller.

While not obligatory, a common feature of long-term supply contracts is the inclusion of ‘take-or pay obligation clauses. A ‘take-or-pay' clause means that the buyer must either accept a minimum quantity of goods or services or pay an agreed price for not taking them. The minimum quantity is usually set as a percentage of the contracted quantity. This percentage typically varies from one contract to another within a range of between 70 – to 100 per cent.

In long-term contracts with ‘take-or-pay’ clauses, so-called ‘Force Majeure’ events may excuse the buyer from liability for non-performance of its ‘take-or-pay' obligation. ‘Force Majeure’ may be defined differently, depending on the applicable law of the respective contract. Typically, ‘Force Majeure’ refers to unforeseeable events which could not be expected at the time of the signature of the contract, and which prevent a party to the contract to perform the contractual obligations due to external circumstances beyond a party’s reasonable control. Contracts may include specific conditions for ’Force Majeure’ often providing for examples, as a result of the agreement between parties. Examples of ‘Force

Majeure' events that can qualify under 'acts of government' can be laws, regulations, and other acts imposed by governments or public authorities that directly affect the ability of the party to perform its contractual obligations.

A legal prohibition of imports of natural gas under a Union trade measure constitutes a sovereign act of the Union beyond the control of gas importers and rendering the performance of natural gas imports from Russia unlawful, with direct legal effect and without any discretion for Member States concerning its application.

5. Measures on Russian oil supplies

The legislative proposal mandates those Member States, which still import Russian oil via pipelines, to plan and monitor phase out through national plans. In the Roadmap towards ending Russian energy imports the Commission announced additional actions to address Russia's shadow fleet transporting oil and circumventing EU sanctions. These will be put forward in the context of the Common Security and Defence Policy, not constituting a legislative act but legally binding measures.

5.1.Assessment of the effects of the proposal

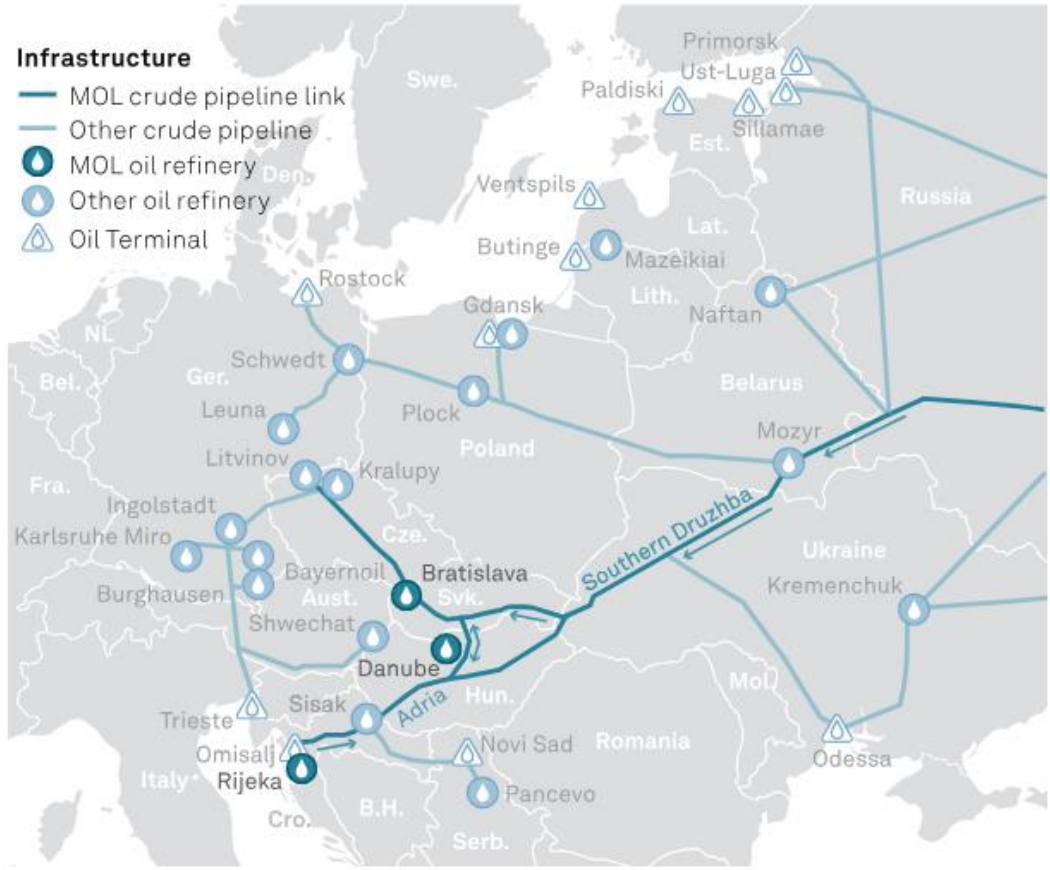
The phase out of Russian oil by 2027 as envisaged in the roadmap would not raise security of supply concerns[76].

First, the Adria pipeline represents a valid alternative to replace the remaining Russian pipeline supplies. The Adria pipeline starts in the Croatian port of Omisalj, goes through Hungary and connects to the Druzhba pipeline in Šahy (Slovakia). The pipeline has a capacity of about 11.4 million tonnes per year, possibly reaching 14.2 million tons per year by adding Drag reducing agent polymers. Currently the pipeline is underutilised (about 80 % of capacity is unused) with existing annual contracts running until the end of 2025 for 2.1 million tons to Slovakia and Hungary. The Adria pipeline has sufficient capacity to cover the entire demand of Slovakia and Hungary, the only two Member States still importing crude oil from Russia (5.2 million tonnes for Slovakia and 6.2 million tonnes for Hungary) as confirmed by Slovakia's National Energy and Climate Plans[77].

[76] This part focuses on Russian remaining imports of crude oil via pipeline. Russian seaborne imports have been almost entirely phased out thanks to the EU sanctions adopted in 2022. However, some small volumes of natural gas liquids from Russia are still reported by Eurostat. Natural gas liquids sometimes referred to as natural gas condensates, are liquid hydrocarbons recovered from natural gas and oil field operations or oil/gas processing plants. They include ethane, propane, butane, and pentanes and are used as feedstocks in the petrochemical industry. NGLs benefit from well supplied global markets. Main NGL producers are the USA, Saudi Arabia, Mexico and Russia for a global market of 13 million barrels per day in 2023 (source: IEA: Oil
2024 -Analysis and forecast to 2030).

[77] Slovakian plan: MINISTERSTVO HOSPODÁRSTVA SLOVENSKEJ REPUBLIKY

Figure 24: Pipeline links to European refineries



Source: S&P Global Commodity Insights

Moreover, refineries in Hungary and Slovakia are well in advanced in developing the necessary technical capabilities to process crude oil from origins other than Russia. For example, MOL, the oil company running the refineries in Hungary and Slovakia still receiving Russian oil, announced that it will be able to fully refine non-Russian crude oil by 2026[78] as already done by several other countries that used to import Russian oil through the Druzhba pipeline (Germany, Poland, Czechia).[79]

Box 3: Czechia's successful phase out of Russian crude oil

Czechia, together with Hungary and Slovakia, has initially benefitted from the derogation on the import ban. In 2023, Czechia imported about 85000 barrels per day (about 4 million tonnes) of crude oil from Russia, accounting for about 60% of its imports, and the rest came from the port of Trieste through the TransAlpine (TAL) and IKL pipelines.

About EUR 60 million was invested in the refit and modernization of the Trans Alpine

[78] integrated-annual-report-2024-eng.pdf

[79] In its NECP, Hungary announced the plan of building a new oil pipeline between Hungary and Serbia with planned capacity of 5 Mt/y with expected commissioning in 2028 to supply non-Russian crude oil to Serbia in line with the current EU sanction regime. This confirms that Hungary is expecting to be able to import oil from origins other than Russia (which would then re-export to Serbia).

pipeline - so-called TAL-PLUS project – which enabled to significantly expand the capacity of transport. The technical work began in April 2023 and was completed in two years.

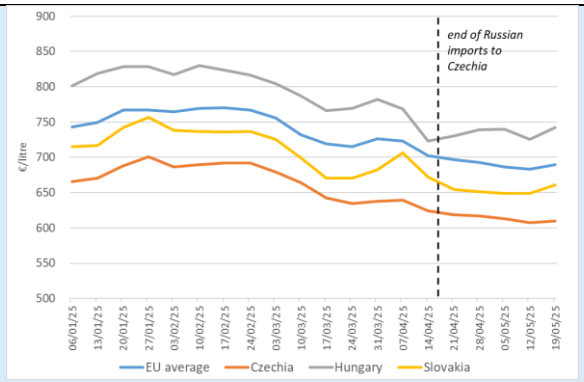
Figure 25: TAP-PLUS project

The TAL pipeline used to have a capacity of 43 million tonnes of crude oil per year, of which 3-4 million tonnes were delivered to Czechia. The TAL-PLUS project increased the operational capacity to 49 million tonnes of oil per year, bringing the capacity available for the Czech refineries to 8 million tonnes of oil per year, sufficient to cover Czech entire crude oil consumption (6-7 million tonnes per year).

As of April 2025, Czechia no longer imports Russian oil through the Druzhba pipeline and it is fully independent from Russian supplies. That was also made possible thanks to the successful technical adaptation of the Litvínov refinery which is now capable to fully process non-Russian crude oil. The adaptation work was completed in 2 years

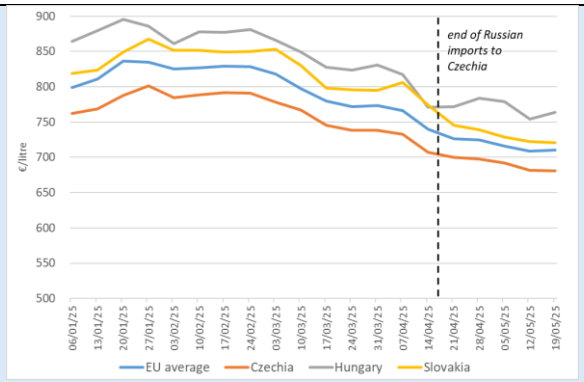
The phase out of Russian supplies did not have any material consequences on retail prices in Czechia. 6 below show that the evolution of Czech retail prices for the main fuels (gasoline and diesel) and compare it with the EU average and the prices in the neighbouring Member States which still import crude oil from Russia. Czech prices followed the EU trend and there is no indication that prices have deteriorated compared to Hungary and Slovakia since Czechia stopped imports from Russia.

Figure 26: retail prices (without taxes) of Euro-Super 95 and Diesel, Jan 2025 – 19 May 2025



Source: oil weekly bulletin

Note: Euro-Super 95



Source: oil weekly bulletin

Note: Diesel

The impact on prices is expected to be limited. The market for crude oil is global and Brent – the price benchmark commonly used in the EU and used to price about two thirds of the internationally traded oil - reflects global oil market fundamentals and the global economy. The waterborne crude oil necessary to replace the volume flowing through Druzhba (approx. 11.4 mt per year) would represent a minimal amount of the seaborne oil traded globally (approx. 0.5%). Therefore, the additional demand to replace Russian oil would unlikely have any material impact on the global balance and therefore on prices. In support of this, it can be noted that Czechia has stopped importing Russian crude oil since April 2025 (approx. 4.3 mt per year), replacing it with seaborne oil coming from the Mediterranean ports, and there is no indication that this has had any appreciable impact on the international prices. On the contrary, Brent is on a downward trend since January 2025, returning to levels last seen in spring 2021. The Czech experience (see Box 3 above) also shows that phasing out Russian oil, if anticipated and well-prepared, does not cause materially negative effects on local retail prices.

Figure 27: Brent prices (USD/barrel), Jan 2025 – mid-May 2025

Source: S&P Global Commodity Insights

Concerns were raised that the JANAF transport fees are higher than Druzhba's. However, transport fees represent about 3% of the crude oil prices and therefore, they have limited effects on the wholesale prices. It is also possible to use alternative routes. For example, seaborne crude oil could also flow from the Black Sea through the Odessa-Brodi pipeline which is connected to the Druzhba pipeline in the Ukrainian territory.

5.2.National diversification plans

Member States will be required to develop comprehensive national diversification plans that detail concrete measures and timelines to phase out Russian oil. Establishing these national diversification plan for oil is essential for achieving the objective of eliminating any dependence on Russian oil and will help provide businesses and investors with the predictability and reassurance they need to make strategic investment decisions to secure alternative oil supplies. The first national diversification plans should be submitted by the end of 2025, to allow for a well-planned and secure phase out.

Concretely, the Commission's legislative proposal has specific targets for Member States to lay out:

- the volume of Russian oil imports under existing contracts;
- timeline, including milestones supporting EU measures to achieve the objective of phasing out Russian oil;
- potential technical or regulatory barriers to replace Russian oil.

The Commission will support Member States in the preparation of the diversification plans where appropriate.

Once these national diversification plans are submitted, the Commission will assess the implementation of the Russian oil phase-out at national, regional, and EU levels. If there is an identified risk that the objective of phasing out Russian oil by 31 December 2027 may not be achieved, the Commission will issue a recommendation, after assessing the plans, outlining potential measures to achieve a secure and timely phase-out of Russian oil. Relevant Member States will be required to update their diversification plans within [three] months, incorporating the Commission's recommendations.